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## **What sexuality? : An exploratory study examining sexual activity and affectionate sexual expression in a Western Australian sample of older adults**

Christina M. Petz  
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Title page



**WHAT SEXUALITY?**  
**AN EXPLORATORY STUDY EXAMINING SEXUAL ACTIVITY AND**  
**AFFECTIONATE SEXUAL EXPRESSION**  
**IN A WESTERN AUSTRALIAN SAMPLE OF OLDER ADULTS.**

BY

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A Thesis Submitted in Partial Fulfilment of the  
Requirements for the Award

Master of Psychology (Clinical Psychology)

Faculty of Community Studies, Education and Social Sciences

Edith Cowan University

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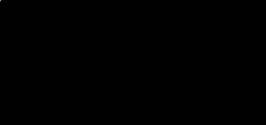
### Abstract

Sexuality in later life has been receiving increased research interest, however, a large majority of research investigates a narrow range of sexual behaviours, primarily frequency of sexual intercourse. There is limited information regarding other forms of sexual expression, specifically affectionate sexual expression that are relevant to older adults. The present study explores what affectionate sexual behaviours constitute affectionate sexual expression and compares sexual intercourse with affectionate sexual expression. The sample consisted of 77 married men ( $n = 35$ ) and women ( $n = 42$ ) aged 60 to 89 years who came from various senior groups and organisations in the Perth metropolitan area. A survey was developed that investigated what constituted affectionate sexual expression, frequency of sexual intercourse and affectionate sexual expression, and interest and changes in affectionate sexual expression and sexual intercourse. Descriptive statistics and t-tests revealed that the Affectionate Sexual Expression Checklist adequately represented forms of sexual expression relevant to older persons. The scale was exceptionally internally consistent. A Wilcoxon Signed Ranks analysis revealed that interest in sexual intercourse was found to decline significantly more than interest in affectionate sexual expression since the age of 50 years. Multiple regression analyses revealed that spouse's health significantly predicted changes in sexual intercourse since the age of 50 years, while age, gender and spouse's health significantly predicted current frequency of sexual intercourse. The four predictor variables of age, gender, self-reported health and spouse's health did not significantly predict changes in affectionate sexual expression since the age of 50 years nor frequency of affectionate sexual expression. Free responses to the survey discussed

how medical conditions led to a decline in sexual intercourse, and how affectionate sexual expression is an important aspect of sexual expression in later life. The results suggest that sexual intercourse and affectionate sexual expression are not mediated by the same factors, where if you have a spouse of good health, changes in the level of sexual intercourse are significantly less likely to occur, and being a younger age, male gender and having a spouse of good health significantly predicted higher levels of sexual intercourse behaviour. The lack of significant predictors of affectionate sexual expression is explained in relation to the stability of these behaviours in later life. This is supported by the theory of sexual integrity (McFarlane & Rubenfeld, 1983), which emphasises the importance of affection and intimacy. These results have important implications that suggest a redefinition of sexuality in later life, that moves beyond a focus on sexual intercourse and sexual intercourse, towards a broader image that incorporates more affectionate aspects of sexual expression. The multidimensional nature of sexuality in later life could be integrated into sexual education programs for older people or health care workers.

### Declaration

I certify that this thesis does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any institution of higher education; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where due reference is made in the text.

A solid black rectangular box used to redact the signature of the author.

Christina M. Petz

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## Sexuality in Later Life

Sexual behaviour is generally accepted as being an integral part of human existence, however, sexuality is seen as reserved primarily for the young (Hodson & Skeene, 1994). Sexual needs and desire are evident in later life, but older persons are denied a sexual reality, as they are viewed as asexual (Byers, 1983; Covey, 1989; Hodson & Skeene, 1994; Minichiello, Plummer, Waite & Deacon, 1996). Only recently has sexuality in later life received warranted research attention (Booth, 1990; Hodson & Skeene, 1994; Minichiello, Plummer, & Waite et al., 1996). Even then, the research has tended to predominantly investigate a narrow subset of sexuality, such as frequency of sexual intercourse (e.g., Marsiglio & Donnelly, 1991; Matthias, Lubben, Atchison & Schweitzer, 1997; Minichiello, Plummer & Seal, 1996), and other overt sexual behaviours, for example, erectile difficulties (Schiavi, Mandeli, & Schreiner-Engel, 1994) and masturbation (Bergström-Walan & Nielsen, 1990).

Beyond overt sexual behaviour, satisfaction with sexual relations and interest in sexual activity in later life has received research interest (e.g., Bretschneider & McCoy, 1988; Matthias et al., 1997; Minichiello, Plummer & Seal, 1996). A few studies have gone beyond the focus of sexual intercourse and other sexual behaviours, to explore broader aspects of sexuality. This small collection of past research has explored the broader aspects of sexuality, including behaviours such as touching and caressing (Bretschneider & McCoy, 1988), and kissing or petting (Mulligan & Moss, 1991; Mulligan & Palguta, 1991). In general however, the principal focus of sexuality in later life research appears to reduce sexuality into quantifiable behaviour, namely

sexual intercourse.

Studies that examine intimate and affectionate behaviours in addition to the frequency of sexual intercourse using older participants have attempted to include some affectionate behaviour, however they are not comprehensive. There is no research that explores how sexual expression is defined in later life. Numerous authors have stated that research investigating broader aspects of sexuality is needed (Badeau, 1995; Deacon, Minichiello, & Plummer, 1995; Fookien, 1994; Minichiello, Plummer & Seal, 1996; Minichiello, Plummer & Waite et al., 1996; Schiavi et al., 1994). A study that explores affectionate and intimate behaviours in older adults may demonstrate that older people remain sexually active by engaging in more affectionate sexual behaviours, despite decreasing frequency of sexual intercourse.

The purpose of this chapter is to review the literature regarding sexual activity and interest, and sexual expression in later life. First, the theoretical framework for this paper will be discussed, presenting an argument that supports the theory of sexual integrity (McFarlane & Rubenfeld, 1983). Definitions of terms used within this paper will be discussed, highlighting problems associated with developing operationalised definitions. A comprehensive literature review will follow outlining predictors of sexual activity, methodological limitations, predictors of sexual interest, and broader aspects of sexuality. Lastly, a description of the purpose of the present study and its research questions will be supplied.



## Theoretical Framework

### Disengagement Theory

Due to the lack of well developed theories of ageing (Burbank, 1986; Coleman, 1993; Hochschild, 1976), it is not surprising that theories related to sexuality in later life are few and not well developed. One theory of successful ageing, is the disengagement theory (Cumming & Henry, 1961). The central idea is that disengagement is an inevitable process, characterised by the withdrawal of an ageing individual from society and society from the individual (Burbank, 1986).

Disengagement is defined as “an inevitable process in which many of the relationships between a person and other members of society are severed and those remaining are altered in quality” (Cumming & Henry, 1961, p. 211). It is a universal, inevitable and voluntary process, which are engaged in by the person and significant people they associate with. Cumming and Henry (1961) did not investigate sexuality issues, indeed the authors referred the reader to Kinsey, Pomeroy and Martin (1948) and the Duke University studies (e.g., Pfeiffer & Davis, 1972; Verwoerd, Pfeiffer & Wang, 1969a, 1969b). Relationships with one’s spouse, and the roles they may assume within the home environment are disregarded. Disengagement is an important theory, as it embodies many of the negative ageist attitudes that are associated with ageing and sexuality in later life. These assumptions about withdrawal being normal can be seen to underlie many of the preconceptions and stereotypes about sexuality in later life.

The theory of disengagement has received a large amount of criticism over the years. Methodological flaws include the cross-sectional design, sampling problems

and the value of the materials used for assessing disengagement in the original study (Coleman, 1993; Burbank, 1986; Hochschild 1975, 1976). The sample included a cross-section of Kansas City mid-westerners, with the exclusion of those with chronic illness, black Americans, and the very lower class. The authors stated (Cumming & Henry, 1961, p. 36) “all of these limitations lead to caution in generalising too widely from our findings and reduce the generality of our theory.” Given that the authors acknowledge these shortcomings, it may be misleading to present this theory as being reliable or valid.

The theory of disengagement has been criticised by many other authors. Atchley (1987) pointed out the need to look at the historical period when the theory was developed, and questioned the current relevance of it to aged people in the latter half of the 20th century. George (1990) made critical observations about disengagement and successful ageing as being only one theme of ageing related to social psychology. Maddox (1964, cited in Streib, 1996) and Rose (1962, cited in Streib, 1996) raised some meaningful questions about the theory, including how the theory neglected to explain how some people are isolated (or disengaged) for most of their lives.

Hochschild (1975, 1976) provided an excellent theoretical critique of disengagement. Hochschild (1975, 1976) disagreed with some of the central concepts of disengagement. He believed that there was insufficient evidence to conclude that disengagement was inevitable, that it was generalisable to all cultures, that it was engaged in mutually by young and old persons in society, and that they were conscious

participants in the process. Some issues that are raised by the theory are illustrated by the following quote:

... We see that the ageing individual may become, say, more expressive, but no more orientated toward his psychic interior; he may become less orientated to others, but no more passive; he can be more internally orientated, but no less socially involved in the church; he may become more involved with the church, but less so with his former work buddies; and so fourth. (Hochschild, 1976, p. 65)

This suggests that where other roles or links are stopped or broken, other more intricate roles or links be established. Hochschild (1976) used an example of social withdrawal of youth who are unemployed is similar to the withdrawal of older persons, and suggested that economic sanctions may be more relevant to describe the process rather than disengagement.

### Geriatric Sexuality Breakdown Syndrome

Several critiques of disengagement theory highlight the issue that withdrawal may not be mutually initiated and mutually beneficial, but may rather stem from societies ageist attitudes (Coleman, 1993). An extension of this view into the area of sexuality is the geriatric sexuality breakdown syndrome (GSBS) (Kaas, 1981). The GSBS attempted to describe the relationship between the social environment and the older adult. It may be summarised as a negative cycle of events in which the older adults internalise negative social attitudes which ultimately results in the self perception of being asexual (Kaas, 1981). Thus psychological effects of social stereotypes and

cultural norms may be an influential factor in the ultimate asexuality of older persons. This is supported by the numerous myths, social attitudes and stereotypes that have been connected to older persons, especially in the area of elderly sexuality (Covey, 1989; Gibson, 1993) which serve to reinforce the perception of asexuality in later life. The progression of asexuality in later life has been interpreted as a self fulfilling prophecy, whereby older adults accept social attitudes regarding their sexuality and ascribe to the perception of being asexual (Butler, Lewis, Hoffman & Whitehead, 1994; Drench & Losee, 1996; Hodson & Skeene, 1994). Myths that reinforce negative social attitudes of sexuality in later life include; people with chronic illness should stop having sexual relations; masturbation in later life indicates serious disturbance; sexual satisfaction decreases following menopause; older men lose the ability and desire to have sex; older men are likely to be sexual deviates, and older women who currently enjoy sex were once nymphomaniacs (e.g., Gibson, 1996; Hodson & Skeene, 1994). Hall, Selby and Vanclay (1982) asserted that the previously mentioned myths promote ageism, restricting the sexual expression of aged persons. The idea that older people are either sexual deviates or asexual may serve to deprive them of sexual fulfilment. Despite the apparent ubiquity of sexuality breakdown with increasing age, and given that this process is enmeshed within social actions, Kaas (1981) does not pose that the GSBS is universal or inevitable. Areas for intervention to stop and interrupt this cycle are given.

### Theory of Sexual Integrity

The theory of sexual integrity puts forward a more positive view of ageing when

compared to disengagement and GSBS. The theory of sexual integrity highlights the multidimensionality of sexuality including those more affectionate aspects of sexuality. Sexual integrity is defined as an “integration of the physical, psychologic[al], social, cultural, and spiritual self as a sexual being within a framework of dependence on and interdependence with other people” (McFarlane & Rubenfeld, 1983, p. 187). Therefore, sexual integrity emphasises a person’s physical and psychosocial needs, and suggests that whilst older people may be dependant on others, they function within interdependant relationships with others. This view is in contrast to disengagement and GSBS, which both rely on the premise of increased dependence and decreased social roles. Sexual integrity appears to have an adaptive theme, which acknowledges the individual chooses roles that suit his or her lifestyle, and supports the ongoing development of the older persons personality and sense of self.

In the theory of sexual integrity, McFarlane and Rubenfeld (1983) have introduced a theory that encompasses facets of intimacy, affection, beliefs and perceptions of sexuality, which disengagement and GSBS have failed to acknowledge, and challenged ageist and negative views of sexuality in later life. Sexual integrity highlights the multidimensionality of sexuality, exploring broader concepts than just sexual intercourse, and reinforces the notion that sexuality occurs throughout the life span, and continues into old age. McFarlane and Rubenfeld (1983) argue that later life is the ideal period for achieving sexual integrity, following the freedom associated with retirement, and declining parental responsibilities. The theory of sexual integrity goes beyond the physiological focus of human sexuality, implying that there is more to

sexuality than sexual functioning, integrating affectionate and cognitive aspects to sexuality. The present study will attempt to move beyond the narrow focus of sexual activity, by expanding the knowledge of what constitutes sexual expression in later life. Sexual integrity does not imply a decline or increase in sexual behaviours, rather it suggests that sexuality in later life encompasses more than the act of sexual intercourse. For example, McFarlane and Rubenfeld (1983) believe that characteristics of a sexually integrated person includes valuing oneself as a sexual being and being aware that one has control over his or her feelings as a sexual being. These facets enhance the growth and development as a fully functioning person. Moreover, there are three main concepts that determine sexual integrity: self identity (body image, self-esteem, role expectation, health status), communication (verbal and non-verbal communication and intimacy) and the environment (culture, family and daily living conditions). These categories are inseparably intertwined, where any changes in one area influences the others, impacting on the determination of sexual integrity.

The determinants of sexual integrity are active through out the life span of all individuals, influencing our sexual development at each developmental level. Factors that influence sexual integrity are being defined and redefined during various times of a persons growth. The determinants that influence sexuality are present at variable levels of intensity, resulting in sexual integrity being a dynamic and changing aspect of a persons development. Sexual integrity is either sustained and preserved or impeded or obstructed by the developmental tasks of the ageing process of human beings throughout their life time.

The factors at play in determining sexual integrity vary depending on the developmental stage that a person is experiencing. McFarlane and Rubenfeld (1983) suggest the following developmental: childhood, preadolescence, adolescence, young adulthood, middle adulthood and late adulthood. Support this is the work by Prager (1995) who proposed that intimacy occurs during infancy, pre-school, early and middle childhood, adolescence, young adulthood, middle and late adulthood. The current discussion will focus on late adulthood and how sexuality is affected by this stage of development. Declining health and age-related physical changes impact on a person's energy level and capacity for sexual activities, however, they do not extinguish sexual needs and desires. It is a common misconception that sexual intercourse must decline sharply or cease altogether as people approach late adulthood. In direct contradiction, Kaplan's (1990) review stated that a great majority of male and female Americans remain sexually active until the end of life. The dynamics of a long relationship between an older couple change as their lives progress, whereby although sexual intercourse continues, perhaps less frequently (Kaplan, 1990). The limitations associated with inability to have sexual intercourse do not prevent an older person from becoming sexually integrated. In spite of health problems that pose obstructions to engaging in sexual intercourse, an older person may redefine how they achieve sexual integrity, by pursuing relationships marked by love and affection.

With the decline in frequency of sexual intercourse, other determinants of sexual integrity may take precedence. For many older adults, companionship becomes more

important than sexual intercourse as they age (Loehr, Verma, & Seguin, 1997; Pager, 1995). Ageing is associated with greater interdependence in marital relationships (Connidis, 1989). The heightened effects of interdependence between a couple may lead to a closer relationship increasing their opportunity for achieving sexual integrity. While passion and sexual intimacy are crucial components of a relationship for a younger couple, older men and women place a greater emphasis on tender feelings of affection and loyalty (Reedy, Birren & Schale, 1981). Furthermore, with older adults, passionate love declines over time (Traupmann & Hatfield, 1981). That suggests that the nature of a relationship and love, changes over time. Older adults may express their sexuality through actions other than sexual intercourse.

Given that this study does not investigate how relationship dynamics change with length of time that a couple is together, and how that affects sexual attraction, desire, arousal patterns and so on, theories relevant to those components will not be reviewed. The present study's focus on affectionate aspects of sexuality and comparing it with sexual intercourse is taken because intimacy and affection can be more fulfilling to one's sexual integrity than sexual intercourse itself (McFarlane & Rubinfeld, 1983). Therefore, the emphasis here is on whether affectionate sexual expression occurs more frequently than sexual intercourse, which is consistent with the theory of sexual integrity. The reality is that for older people, if a person engages in affectionate behaviours, even in isolation to performing sexual intercourse, the relationship still retains sexual qualities (Bright, 1997). The present study does not intend to investigate all aspects of sexuality in later life, but will investigate the area of affection, which has



not previously been examined.

### Definitions of Terms

It is important to explicitly define what different sexuality terms mean as they are often used interchangeably in the literature. The often vague or non-existent definitions do not provide a clear understanding of what is being studied and comparisons between studies may be problematic. Furthermore, there is a lack of operationally defined terms in a large majority of the literature that makes it difficult to suggest any one definition of sexuality that is widely used. For the purpose of the current study, the definition of sexuality will be based on that proposed by Drench and Losee (1996): sexuality is the sum of biological, psychological and psychosocial factors, which encompass sexual behaviours, drives, feelings, emotions and attitudes. This provides a holistic view of how sexuality incorporates all aspects of a person's being such as cultural influences and emotional needs which may be far removed from the traditional perceptions of sexual activity.

### Sexual Expression

The term's sexual activity and sexual expression are often used interchangeably in empirical studies (Bergström-Walan & Nielsen, 1990; Creti & Libman, 1989) and in discussion articles (Drench & Losee, 1996; Hodson & Skeene, 1994). However, the definition of sexual expression is more usefully conceptualised as a broad concept subsuming sexual activity. The definition of sexual expression will be based on Creti and Libman (1989, p. 89) who have referred to sexual expression as consisting of:

overt behaviors which include a range of both interpersonal (e.g., coital and noncoital sexual interactions) and individual activities (e.g., masturbation, reading or viewing erotica); covert behaviors (e.g., sexual thoughts and fantasies); motivational aspects of the sexual experience (e.g., desire and interest); and subjective evaluation of the sexual experience (e.g., enjoyment, satisfaction).

That definition reflects several facets of sexual expression. It includes individual and partnered sexual experiences, overt and covert sexual behaviours, cognitions, motivation and one's own perception of a sexual experience. Sexual expression describes all forms of sexual behaviours which may be genital (e.g., masturbation, coitus) or non-genital (fantasy, desire).

### Sexual Activity

Whilst sexual expression may involve numerous sexual activities, sexual activity may be conceptualised as a subset of sexual expression, which incorporates more traditional aspects of sexual behaviours. These include overt sexual behaviours such as intercourse, oral sex, masturbation and mutual stimulation. For the purpose of the current review and study, sexual activity refers to coitus, the sexual act of penial and vaginal intercourse. Some studies have subsumed other behaviours (e.g. masturbation) under this term; however, the present review will only refer to sexual activity as meaning sexual intercourse, in isolation to any other sexual behaviours. Other sexual behaviours (e.g., masturbation, mutual stimulation and oral sex) are not covered in the

present study and therefore those terms will not be defined. The reason for the exclusion of those other sexual behaviours will be discussed later in the aims of the literature review section.

### Affectionate Sexual Expression

The term affectionate sexual expression has not yet been used before in the literature. It will refer to the wider aspects of sexual expression, being similar to the definition of sexual expression (Creti & Libman, 1989), but excluding overt sexual behaviours such as intercourse, masturbation, and mutual stimulation. In reference to Creti and Libman (1989), affectionate sexuality can be described as individual or partnered activities (reading or viewing erotic material, being massaged, holding hands, kissing) covert behaviours (e.g., fantasies), motivational states of sexual experiences (desire) and one's own perception of the sexual experience (e.g., feeling attractive, trust in another person, being emotionally close), while excluding individual or partnered genital behaviours (e.g., intercourse, masturbation). Affectionate sexual expression relates to aspects of one's personality that makes one a sexual being, which can be recognised by the aforementioned behaviours, cognitions and emotions.

Sexual activity and affectionate sexual expression are components of sexual expression, however they have different focal attributes. The former refers to sexual behaviours that involve genital manipulation or involvement, the latter refers to affectionate and intimate aspects of sexuality. Sexual expression encompasses all different behaviours, including sexual behaviours and intimate and personal

manifestations of sexuality. The definition of affectionate sexuality is not fully developed, however, and an aim of the present research is to investigate what behaviours older people believe are forms of affectionate sexuality.

### Affection and Intimacy

Affectionate sexual expression subsumes the terms of affection and intimacy. Indeed, the three terms ASE, affection and intimacy are used synonymously within the present research. Affection and intimacy will be used in the present study to refer to states of physical and emotional contact between two or more individuals who exert positive feelings towards each other (McFarlane & Rubinfeld, 1983).

### Sex and Sexual Interest

To clarify a few terms that occur throughout this paper, sex, sexual interest and mid-life will be defined. Sex refers to the act of sexual intercourse (i.e., “we don’t have sex anymore”), or to another specific sexual act to which it may refer (i.e., oral sex). Sexual interest refers to one’s interest in performing sexual intercourse or other sexual activities, in isolation to being able to perform sexual intercourse, or having access to a willing partner with whom one could have sexual intercourse with. Hence, sexual interest refers to one’s curiosity or concern about the act of sexual intercourse.

### Mid Life, Later Life, Older Adults, Older Persons and Late Adulthood

Finally, mid-life has been given an arbitrary cut off age, at which it has been decided upon 50 years of age. This is for comparative purposes, where respondents

compare changes in sexual intercourse levels with previous levels. Later life, older adults, older persons are all descriptive terms that refer to persons who are aged 60 years and above. Late adulthood has been defined in the literature as people being 65 years of age and older. Therefore, the term late adulthood refers to people specifically in that age category, whereas, later life, older adults and older persons are in reference to persons aged 60 years and above.

## Literature Review

### Aim of Literature Review

The following review focuses on studies that have investigated sexual intercourse in later life and others that have focused on factors that investigate affectionate aspects of sexuality. There are a wide range of issues that have been explored and those that are currently unexplored in the psychological literature, however, this study focuses on only one of these. The present study does not attempt to examine the gamut of sexual behaviours. However, the present study does endeavour to provide preliminary information on affectionate sexuality that has in the past been neglected.

As such, the emphasis of the present study is not to provide a comprehensive description of sexual behaviour in older persons, rather it provides initial material and data on affectionate sexuality. A thorough understanding of sexual behaviour may only be obtained with an in-depth interview and qualitative analysis (Minichiello, Aroni, Timewell & Alexander, 1995). The present study does not make any claims to complete that. The central aim of the present study is to investigate how patterns of

In summary, due to the aims of the present study, affectionate sexual expression and sexual intercourse levels will be the focus of this investigation. Other overt sexual behaviours will not be included here due to sampling limitations, cost benefit analysis, time constraints and the natural resources available to the author.

### Historical Context of Research on Sexual Functioning

The early studies of sexual functioning and sexual intercourse in older people were empirical studies, focusing on frequency of sexual intercourse. The studies of this era (1940s to the 1960s) had numerous methodological and sampling problems that limited their generalisability, however they were received with great interest. The studies by Kinsey and his colleagues (Kinsey, Pomeroy & Martin, 1948; Kinsey Pomeroy, Martin & Gebhard, 1953) were the first reported to examine the relationship between age and sexual responses. There were 152 participants, aged between 51 and 80 years. The results revealed that sexual intercourse continued throughout later life, although there was a general decline in all measures of sexual activity across the age range. The authors reported that 70% of married women remained sexually active, which was supported by Masters and Johnson (1970) who found 70% of married women over 60 years were sexually active.

Masters and Johnson's (1966, 1970) clinical studies of the physiology of sexual responses were hailed as a 'new development', providing information on the sexual response cycle in older women. Furthermore, person's who reported higher levels of sexual activity in their youth were also more likely to be sexually active in later life.

The Kinsey (Kinsey, Pomeroy & Martin, 1948; Kinsey Pomeroy, Martin & Gebhard, 1953) and Masters and Johnson (1966, 1970) studies are not without their methodological flaws. Both studies had a cross-sectional research design that may be revealing cohort differences rather than actual differences in sexual response. Both studies had small sample sizes, which limits the generalisability of this information (only 58 women were aged over 60 in the Kinsey studies, and 11 women were aged over 60 years in the Masters and Johnson studies).

In the late 1960s to 1970s, Pfeiffer and his associates published a number of studies on sexuality in later life with data from the Duke University (Pfeiffer & Davis, 1972; Pfeiffer, Verwoerdt, & Davis, 1969; Verwoerdt, Pfeiffer & Wang, 1969a, 1969b). Those studies were the first with a longitudinal design that investigated both sexual activity and sexual interests of older people. The longitudinal studies at Duke University examined 250 people aged between 60 and 94 years every three years for more than 20 years. These studies found that some participants (15%) actually increased their patterns of sexual activity and interest in sexual activity as they aged.

The authors concluded that sexual activity declined gradually over time for both men and women; that sexual interest declined over time, yet more slowly than sexual activity; and that sexuality among women was heavily dependent on being married or having a functionally capable partner. Approximately 50% of women in the study had reduced levels of sexual interest, however, participants retrospective reports of level of sexual interest when younger predicted sexual interest in later life. These early studies

demonstrate that age has a variable influence on sexual activity and interest in later life.

Other large-scale sexuality studies which have historical significance in the research of sexuality in later life include the Hite report (Hite, 1976), and the Starr-Weiner Report (Starr & Weiner, 1981). The Hite report (1976) provided positive information about females sexuality: sexual pleasure increases with age, and the initiation of new experiences with themselves, other women and younger men. In general, the report explained how women's sexuality had expanded beyond sexual intercourse, but was not necessarily restricted to sexual acts. There appeared to be no assumption that increased age reduces sexual interest and activity. Hite (1976) suffered from sampling problems, with only 18 participants aged 60 years and above, and only 7 were aged over 65 years. The chapter on older women's sexuality would more accurately reflect middle-aged women, with the majority of comments being from women aged 40 -55 years. The report offered no clear definition of 'older women' and the information was highly anecdotal. The response rate of 3% severely limits that study.

Starr and Weiner (1981) were informed by 66% of their participants (N=800), aged 60-91 years, that the physical act of sexual intercourse felt as good or better than it did when they were younger. A further 90% of participants said that they would like sexual intercourse if it were available. This then supports the notion that age alone does not reduce interest or activity, suggesting other factors may be held more



responsible for those decreases. The Starr and Weiner study (1981) was limited by the cross-sectional research design, and sampling problems. The researchers received a 14% response rate of those canvassed.

The majority of earlier studies on sexuality in later life had many methodological flaws and sampling problems. The data was not analysed in any great depth, being presented primarily as frequencies or in anecdotal form. Cross-sectional designs were very common and the focus of the studies was limited to examining the frequency of coital interactions. The early studies on sexual functioning presented information with the primary focus on establishing whether older people had sexual relations. There was little emphasis on the quality of these relations, or on broader concepts of sexuality such as affection and satisfaction with their level of sexual activity. The analysis of the data collected by those studies was principally descriptive, with percentages reflecting the number of person's sexually active. The narrow research focus of the majority of those studies, and the anecdotal nature of the Hite (1976) report leave many unanswered questions. What does this information tell us? What does this information tell us about sexuality in later life? Research is needed to go beyond the focus of frequency of sexual behaviours and provide information which gives us a clearer image of an older people as sexual beings, not just an account of whether or not they are sexually active. The present research aims to provide information that goes beyond the current depiction of older person's as being sexually active or not sexually active as defined purely by their frequency of sexual intercourse behaviour.

### Predictors of Sexual Intercourse

Even the more current research has a focus on the quantifiable aspects of sexuality and sexual relations. Certain predictors that have been linked to declining sexual intercourse will be discussed. These include age, gender, marital status, health and health of spouse. The majority of the data analysis in the following section is presented primarily as frequencies, providing the reader with a potentially overwhelming amount of percentages to compare with the percentages found in other studies. This is a problem with much of the research in this area and highlights the need to move beyond the quantitative aspect of sexuality to one which describes more about the nature of sexual relations in later life<sup>1</sup>.

#### Age

Aside for studies completed much earlier (i.e., Hite, 1976; Verwoerd, Pfeiffer & Wang, 1969a, 1969b), increasing age has been consistently associated with declining sexual intercourse frequency. The negative relationship between age and sexual intercourse frequencies has been demonstrated with samples from North America (Marsiglio & Donnelly, 1991; Matthias et al., 1997), Sweden (Bergström-Walan & Nielsen, 1990), and Australia (Minichiello, Plummer & Seal, 1996). The articles in

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<sup>1</sup>Some authors (Bergström-Walan & Nielsen, 1990; Minichiello, Plummer & Seal, 1996) have researched the relationship between religiosity and sexual activity. Those studies did not find a significant relationship with married samples. Similarly, the relationship between ethnicity and sexual activity has been explored producing significant (Matthias et al., 1997) and nonsignificant (Minichiello, Plummer, & Seal, 1996) results. Due to limitations on sampling size and access to persons of different ethnic backgrounds, the present study does not investigate the effect of religiosity or race on sexual behaviour.

this section present their data as percentages, primarily comparing percentages of sexually active persons with different age groups. Generally most authors ask if the respondents were sexually active within the last month, which determines that they are currently sexually active.

Matthias et al. (1997) conducted a study of sexual activity and satisfaction among older adults living in the community (N = 1,216). Participants had an average age of 77.3 years. Of their sample, almost 30% had participated in sexual activity in the last month and 67% were satisfied with their current level of sexual activity. Logistic regression analyses revealed that age significantly predicted sexual activity. Separate gender analyses found that age predicted sexual activity for men, but not for women. Women were likely to be less sexually active at any age compared to men. It should be noted that the study was limited as the sample was aged 70-years and over, and participants had a high level of intelligence and income. Terms such as 'sexual relationship' and 'sexual activity' were not operationally defined.

Marsiglio and Donnelly (1991) studied married person's sexual relations using a national probability sample of 807 United States adults aged 60-years and above. The frequency of sexual intercourse was evaluated by a single-item measure that asked "About how often did you and your husband/wife have sex during the past month?" (p. s339-340). Within the past month, 53% of the sample reported having sexual intercourse at least once in the past month. A logistic regression analysis revealed that age was associated with the occurrence of sexual intercourse in the past month. While

65% of persons aged 60-65 reported having sexual intercourse at least once during the last month, 45% of 71-75 year olds, and only 24% of person's 76 years and older reported sexual intercourse within the past month. Marsiglio and Donnelly's (1991) study was not a representative sample that limited the generalisability of those results.

Similar to Marsiglio and Donnelly (1991), Bergström-Walan and Nielsen (1990) found that their sample of 60 to 80-year olds ( $N = 509$ ) were sexually active, in both sexual intercourse and masturbation activities. Approximately one quarter of married couples reported that they have sexual intercourse at least once a month. There was a significant decrease in level of sexual activity in the higher age group (75-80 years). Although older age groups still reported having sexual intercourse, 52% of men and women aged 75-79 years never had sexual intercourse compared to only 21% of men and women aged 60-64 years. This was a cross-sectional study that may reflect cohort differences that are not generalisable.

Minichiello, Plummer and Seal (1996) reported a similar decrease in sexual activity with increasing age. Minichiello, Plummer and Seal (1996) conducted a study which was the first of its kind to examine sexual activity and interest in later life with an Australian sample. The authors selected a random sample of 844 older people who participated in a National survey on the Health Status of Older People (Kendig, Helme, Teshuva, Osborne, Flicker, & Browning, 1996). The results showed that there was a significant relationship between increasing age and decreasing sexual activity: older men and women were less likely to be in a sexual relationship. Fifty three percent of

participants aged 65-69 years were currently involved in a sexual relationship, compared to 16% of persons aged 80 years and older. The study performed by Minichiello and associates (Minichiello, Plummer & Seal, 1996) provided important information regarding sexuality in older Australians. However, it is unclear why the authors chose to analyse their data using numerous chi square analyses. A regression model of statistical analysis could have provided the authors with more useful information.

The studies discussed here (Bergström-Walan & Nielsen, 1990; Marsiglio & Donnelly, 1991; Matthias et al., 1997; Minichiello, Plummer & Seal, 1996) all suggest a negative relationship between age and frequency of sexual activity. In contrast to those aforementioned studies are Bretschneider and McCoy (1988) who did not find a significant association between age and sexual intercourse. The age of the sample (80 - 102 years) may have influenced this result, as a large percentage of the younger age groups 80 - 85 years (72%) and 86 - 90 years (64%) reported having no sexual intercourse. Those results may reflect a ceiling effect. The majority of other studies suggested that although some persons who are 80 years of age or older are sexually active, the percentage is quite small. Therefore, one may expect that the differences in sexual activity between the ages of 80 and 102 years would be minimal.

There are some studies with a broader age range (George & Weiler, 1981; Starr & Weiner, 1981) that have not found significant relationships between sexual activity and age. George and Weiler (1981) studied one cohort over time, and found that most

people's level of sexual activity remained the same. Starr and Weiner computed average levels of sexual intercourse, and found that participants in the older age group (80 years and older) engaged in sexual intercourse less (1.2 times a week) than younger participants. The differences between the younger age groups was minimal (60 -69 year olds had sexual intercourse approximately 1.5 times per week, and 70 -79 year olds had sexual intercourse 1.4 times a week). Starr and Weiner (1981) stated that the frequency of sexual intercourse reported by their subjects (aged 70-79 years old) were not much different from Kinsey et al.'s (1948) 40-year-old subjects. Although the groups are different, the participants would come from the same generation that helps to identify the role of cohort verses age differences. Comparing current levels of sexual intercourse with reported past levels is one method of identifying if there are changes in the frequency of coitus. Another technique may be to directly ask if as participants level of sexual activity has changed since earlier years.

The information regarding age as a predictor of sexual activity appears to be inconsistent. Those studies that have suggested a link between age and sexual activity tend to have a cross-sectional research design. Those results may reflect generation changes rather than 'true' changes in levels of sexual activity. Studies that have examined one cohort over time have not found sharp declines of sexual activity with increasing age (George & Weiler, 1981; Starr & Weiner, 1981). Longitudinal studies may be the best research method for evaluating age related declines of sexual activity, however this is not always possible or feasible. A suggestion for overcoming this difficulty may be comparing past and present levels of sexual activity by self-report

measures, such as Starr and Weiner (1981). Additionally, the reduction of sexuality to the percentage of those currently sexually active highlights the need for broader questions. Obviously there is a visible decline in the frequency of sexual activity, but what is the nature of this decline in reference to the other dimensions of sexuality?

### Gender

Gender has emerged as an important predictor of sexual activity in later life, with males being significantly more active than females. This has been explained in relation to the male to female ratio disparity, which is evident in older adults. As there are more females than males, the probability of a male being sexually active is increased as he has access to a larger pool of possible partners. Bergström-Walan and Nielsen (1990) reported that in their sample of 1,574 randomly chosen Scandinavian 60-80 year old men and women, men (88%) were significantly more active than women (71%). Men were significantly more sexually active than women in all ages. Men obtained sexual satisfaction from the following sexual behaviours more frequently than women through dreams, erotic pictures, masturbation, mutual sexual stimulation and intercourse. Intercourse was the most usual way of satisfaction for 55% of the men and 23% of the women. That result may suggest gender differences in the way sexual desires are expressed and satisfied. Mulligan and Palguta (1991) have also reported preference for sexual intercourse over other sexual behaviours in their male sample.

Minichiello, Plummer and Seal (1996) reported that gender was the only

dependant variable out of six dependant variables (the others being age, marital status, spiritual beliefs, self-reported health, ethnicity) which was significantly associated with all the five measures of sexuality (number of sexual partner's, in a sexual relationship, perceived importance of sexual intercourse, changes in sexual interest and changes in sexual activity). The percentages of participants who were currently involved in a sexual relationship by gender and age were higher for men in all three-age categories. For example, 66% of males aged 65-69 years were in a sexual relationship, compared to 37% of females. In the oldest age group (80 years and above), 29% of males were currently sexually active, compared to 8% of females (Minichiello, Plummer & Seal, 1996). Those results strongly suggest gender differences, but may reflect the gender ratio imbalance, where older females are less likely to have a partner, and therefore are unable to engage in heterosexual intercourse.

Marsiglio and Donnelly (1991) explained gender differences of sexual behaviour in later life in terms of gender-related norms which impact on one's sexual relationship as women are likely to be, on average, several years younger than their partners. This impacts on sexual relationships in older persons, as the reduction of interest and physiological capacity for intercourse (particularly for men) occurs with increasing age. Marsiglio and Donnelly (1991) further suggested that the declining health status of one's partner might be linked to sexual patterns.

As noted above, another explanation may be that many of the aforementioned studies combined married with single participants, which confounds the results. It



seems reasonable to expect gender differences in sexual activity levels in such combined samples. Australian statistics show that women are more likely to experience widowhood than men, men are more likely to be married and men who are widowers are more likely to remarry (Rowland, 1991). North American literature suggests similar patterns (Croese & Drake, 1993; Edelman, 1992; Robinson, 1983; Roughan, Kaiser, & Morley, 1993). Thus, women are more likely to outlive their male partners as they marry older men who have a shorter life expectancy (Edelman, 1992; Rowland, 1991). This enables surviving men more opportunities to have a female partner (Deacon et al., 1995; Minichiello, Alexander & Jones, 1992). These sociodemographic considerations may therefore play a major role in creating the gender differences observed in the frequency of coital interactions when non-married respondents are included in the sample.

### Marital Status

As noted, the majority of studies with older populations have reported that men are more likely to be sexually active (Adams & Turner, 1985; Bergström-Walan & Nielsen, 1990; Brecher, 1984; Bretschneider & McCoy, 1988, George & Weiler, 1981; Matthias et al., 1997; Minichiello, Plummer & Seal, 1996; Starr & Weiner, 1981). However, the aforementioned studies combined single and married persons in their analyses, which does not control for contextual factors such as accessibility of sexual partners. This point is illustrated by the study from Bretschneider and McCoy (1988) who found a significant relationship between marital status and the occurrence of sexual activity, but no relationship between gender and coitus. In trying to find

differences in sexual activity among older people, discussion articles and anecdotal information consistently reported that the lack of a sexual partner is a reason for declining sexual activity (Booth, 1990; Crose & Drake, 1993; Nay, 1992; Roughan et al., 1993; Waslow & Loeb, 1978).

A study that clearly examined the effect of marital status on sexual activity was that of Diokno, Brown and Herzog (1990). In their sample of 744 older adults, 74% of married men were sexually active compared to 31% of the unmarried men, and 56% of married women were active compared to 5% of unmarried women. This finding clearly suggests that marital status and gender influences sexual experiences in later life. Being in a married relationship appears to increase the chances of being in a sexual relationship, which is consistent with Minichiello, Plummer and Seal (1996). As previously mentioned, 66% of all married couples were currently sexually active, compared to 39% of the entire sample (which included married couples). The data suggests that gender may be of less value in understanding sexual behaviour of married couples in later life. There does appear to be a general trend that the majority of married couples are sexually active. Despite these results, this is preliminary information. Further studies could provide useful information.

Although Minichiello, Plummer and Seal (1996) did not directly examine sexual activity levels of married couples in their Australian sample, in their article they provided the reader with a break down of the percentages of married people currently in a sexual relationship. Sixty three percent of all married couples were in a sexual

relationship compared to 37% of unmarried persons. Percentage break-downs of the age groups showed that over a half of males and females aged 65-79 years were sexually active, while 41% of person's aged 80 and above reported being sexually active. There did not appear to be great gender differences, but significance levels were not examined. Descriptive statistics comparing married and unmarried persons currently involved in a sexual relationship could have provided a base for comparison.

Marsiglio and Donnelly (1991) reported that over half (54%) of their married participants were sexually active, with 54% of men and 51% of women reporting having sexual intercourse at least once in the last month. Marsiglio and Donnelly (1997) investigated sexual intercourse behaviour of married couples aged 60 years and older ( $N = 807$ ). A logistic regression model was estimated to predict the odds that married couples engaged in sexual intercourse at least once in the last month. Although the result was not significant, men were 1.149 times more likely to have had sexual intercourse. Furthermore, a multiple regression analysis also found that gender did not significantly predict frequency of sexual intercourse in the past month.

When marital status is controlled for, the effect of gender is greatly reduced. Numerous authors have reported that marital status consistently predicts sexual activity in later life (Bretschneider & McCoy, 1988; Diokno et al., 1990; Matthias et al., 1997; Minichiello, Plummer & Seal, 1996; Mulligan & Palguta, 1991; Richardson & Lazur, 1995; White, 1982). This is an extremely important component that needs to be taken into account when conducting research on sexuality in late life. Studies that fail to

consider the marital status of their sample, and combining married and unmarried persons in the same analysis are presenting a biased view of sexual behaviour in later life that does not take into account the accessibility of a partner. Those results are less robust than those studies that analyse married and unmarried persons independently.

### Health

Health is a factor that is consistently associated to levels of sexual activity. Just as celibacy may occur because of the loss of a partner, it also occurs due to illness (Kaplan, 1990; Kellett, 1991; Marsiglio & Donnelly, 1991; Wiley & Bortz, 1996; Zeiss, 1997). For some people, infirmity is a serious impediment. Decreased levels of sexual behaviour have been linked with a large range of illnesses, including lack of mobility (Diokno et al., 1990), cancer, incontinence, and pulmonary diseases (Mooradian, 1991), diabetes, prostate problems, and renal dialysis (LoPiccolo, 1991), depression and articulatory diseases (Badeau, 1995). Mooradian and Greiff (1990) also found the absence of illnesses to be an important factor associated with sexual interest among women.

Less researched is the effect of a spouse's health on levels of sexual activity. Fooker (1994) interviewed 60 West German women, born between 1907 and 1936. One theme that emerged from their interviews was that the participants believed that their partner's failing health impacted on their ability to have sexual intercourse. Perception of body image also appeared to be important in explaining psychological well being and sexuality in later life to a greater degree. Marsiglio and Donnelly

(1991) reported that respondent's health was not a significant predictor of sexual behaviour patterns, but the health status of respondents partners was significantly associated with reports of having sexual intercourse in the past month. While not examining the health status of a spouse, Minichiello, Plummer and Seal (1996) found self reported health was not significantly correlated with any of their five sexual experience dependent variables.

Although health is an important factor that influences sexual relations, the health of one's spouse may be more influential in determining subsequent sexual intercourse level than one's own health. Spouse's health status has not been examined with an Australian sample, so the present study will investigate this area further. Self-reported health does not appear to be as strong a predictor of sexual relations, however, more research is needed and will be included in this study.

### Methodological Problems

Unfortunately, research in the area of sexuality and ageing contain various methodological problems which can interfere with understanding of what really occurs with regard to the sexuality of ageing persons. Many of the methodological problems inherent in sexuality research in later life have been mentioned, however, the following section provides an overview and suggests how the present study has attempted to overcome these problems. Libman (1989) and Oppenheimer (1991) both provide excellent reviews of the methodological limitation evident in the literature on sexuality and ageing and their work will be drawn on here.

Libman (1989) stated that the following methodological problems exist in current research on sexuality and ageing: (a) correlational studies are interpreted as causal; (b) the selection of a typical sample is difficult due to differences in degrees of mental impairment, economic resources, lifestyles, experiences and subjective well being; (c) cohort effects which are interpreted as being related to the ageing process, which are compounded by large age ranges within samples, and the use of non-random samples; (d) lack of evaluation of the multidimensional nature of sexuality, including behavioural, cognitive and affective dimensions; (e) studies use varied assessment methods for determining sexual function, and the use of invalidated sexual questionnaires; (f) criteria for sexual functioning vary between studies; and (g) descriptors are not operationally defined.

Many studies have inadequate samples and suffer from sample bias (Kaye, 1993). The generalisability of many studies are limited due to their small, unrepresentative samples (Marsiglio & Donnelly, 1991; Matthias et al., 1997; Roughan et al., 1993; Oppenheimer, 1991). Matthias et al. (1997) questioned the extreme variation of age categories that confine comparison between studies and limitations associated with examining males or females in isolation. Roughan et al. (1993) reviewed 12 studies completed between 1953 and 1992, which examined sexual functioning in older women. Seven of those reviewed had sample sizes of less than 152 and ten studies had minimum ages between 50 and 60 years. Only a few studies examined sexual activity in conjunction with sexual satisfaction, a fact that emphasises the narrow focus of

sexuality research.

The majority of studies are cross-sectional which makes interpretation of results problematic. Differences between people of different ages, for example a 60 year old and an 80 year old may be a function of generation differences, apparent in the behaviours, values and attitudes (Deacon, Minichiello, & Plummer, 1995). To minimise cohort effects, the alternative to cross sectional studies may be longitudinal research, which may also have problems: longitudinal research is limited to describing a particular generation in a specific historic period (Robinson, 1983). In that instance, the generalisability and functional use of longitudinal research can also be limiting. However, the best way to study age changes are with longitudinal designs, where participants act as their own controls. Any changes in the measures may then be related to age changes. The present study will examine changes in sexual activity since mid-life to try to reduce the effects that may be attributed to cohort differences.

It has already been mentioned that there are no consistent definitions of terms used in the sexuality research. Divergent definitions make comparisons between studies problematic. The present study has provided definitions of important terms that will allow readers and participants to understand what behaviours are being measured. Marsiglio and Donnelly (1991) criticised current definitions of sexuality as being youth-orientated, having a narrow focus on coitus. Feminist writers, Haddad and Benbow (1993) contended that sexual expression should not be limited to sexual intercourse, emphasising that it includes a wide range of behaviours. The current study

aims to provide information that will provide the opportunity to find out more about what behaviours constitute different forms of sexual expression rather than focusing on sexual intercourse.

One should not despair and think that with all those potential problems, research in this area is too difficult. Libman (1989, pp. 563-564) recommended the following guidelines to overcome any difficulties:

- (1) The nature of the sample must be clearly specified and subjects must be grouped (e.g., by age, health status, etc.).
- (2) Sexual functioning prior to entering the “ageing” category should be evaluated... at the very least by using the same measures to estimate prior and current status.
- (3) The criteria of sexual functioning must be specified and operationally defined... and its component dimensions must be measured and evaluated separately...motivational factors such as interest and desire, affective variables, such as satisfaction and enjoyment must all be taken into consideration.
- (4) Measurement of the criteria should be specified and multiple measurement techniques should be used.

Clearly stating the specifications of the sample, using varied assessment techniques, making sure past and present levels of sexual activity are measured, and operationally defining the terms used in the study, should reduce the problems associated with much of the past literature.

The present study will attempt to take into account the methodological



recommendations identified by Libman (1989). First, the selection of this sample will not be random, however the participants will be recruited from various sources to enable a wide range of responses to allow for differences in degrees of mental impairment, economic resources, lifestyles, experiences and subjective well being. The bias associated with only having those people who are willing to do this form of a survey may not be so high as Minichiello, Plummer and Seal (1996) found that they had response rates of between 73% and 93% for their Australian survey regarding questions on the sexual activity of older persons.

The development of the affectionate sexual expression survey will include checks that a complete list of affectionate behaviours is constructed, and that the items adequately reflect the ways in which the older adults express themselves in affectionate or nongenital ways. This will be done by using an Affectionate Sexual Expression Checklist (ASEC) developed for the present study, based on items that have been used by previous authors and researchers as demonstrable of affectionate aspects of sexuality. Respondents will agree or disagree with the items chosen on the ASEC to determine if the items on the checklist reflect affectionate sexual expression in later life. Open ended questions will ask for any further suggestions for examples of affectionate sexual expression that aren't included in the scale.

The use of retrospective reports may limit the reliability of responses, however, what is really important in this study is whether or not the respondent perceives there to be a change in the way they express themselves sexually. In order to control for

cohort effects, participants will provide information, which determines whether they believe if their level of affectionate sexual expression or sexual intercourse behaviour has decreased since the age of 50 years. The participants will be given definitions of what constitutes sexual activity and affectionate sexual expression, which will minimise the participants from using their own definitions of what these activities could be.

The results of this study will be interpreted as correlational, not causal, and the author will be careful not to interpret any cohort effects as being related to the ageing process. Examining past and present levels of affectionate sexual expression will also control for cohort effects. This study will evaluate the multidimensional nature of sexuality, which in the past has been lacking from a great deal of research in this area.

### Sexual Interest

Research of sexual interest examines a concept that is less tangible than frequency of sexual intercourse. However, the demographic and physiological variables that have been linked to sexual activity have also been implicated in research on sexual interest, although somewhat inconsistently. Younger age (Bretschneider & McCoy, 1988), being male (Bergström-Walan & Nielsen, 1990; Minichiello, Plummer & Seal, 1996) having a partner (Mulligan & Palguta, 1991) and good health (Schiavi et al., 1994) have all been linked to continued sexual interest.

A number of authors have found that sexual interest declines with age.

Bergström-Walan and Nielsen (1990) compared current level of sexual interest with self-reported level of sexual interest at the age of 40 years. From their sample of Swedish men and women, interest in sexuality was negatively correlated with age, however, 35% of men and 15% of women considered that their level of sexual interest to be at the same level, and 5% of women reported that their interest was stronger. A cross-sectional study by Mulligan and Moss (1991) reported that sexual interest significantly declined with increasing age in their sample of 427 male veterans aged 30 - 99 years. Although not formally measured, Mulligan and Palguta (1991) stated that the levels of sexual interest had declined from earlier years. The cross-sectional design of Mulligan and Moss (1991) and Mulligan and Palguta (1991) limits the generalisability of those results.

Minichiello, Plummer and Seal (1996) found that 60% of women and 47% of men reported that their level of sexual interest had declined since the age of 40 years. A substantial percentage of men (50%) and women (36%) reported no changes in their level of sexual interest. The results discussed here regarding the relationship between sexual interest and age vary. Some studies show a significant relationship between age and sexual interest, others describe that there are no changes, and small minorities of respondents have increased their level of sexual interest when compared with previous levels.

Minichiello, Plummer and Seal (1996) found a significant relationship between gender and reported changes in levels of sexual interest, with women being more likely

to report a decrease in sexual interest. It is unclear whether it is the gender of the participant that had greater influence on the reduction in sexual interest, or the gender-related norms which differentially influence the sexual experiences of males and females (Marsiglio & Donnelly, 1991). Those results may have been confounded by not having discrete groups of married and unmarried persons, where females are less likely to have access to a partner which may impact on their sexual behaviour and interest. As noted previously, comparing married and unmarried men and women in the same sample confounds the results. Participants in the Bergström-Walan and Nielsen (1990) study with partners were more likely to value sexuality as important compared to those without partners.

Similarly, Mulligan and Palguta (1991) found that sexual interest was significantly higher among male nursing home residents ( $N = 61$ ) who had a partner ( $n = 30$ ). Those men without partners expressed a belief that they would be more interested in sexual intercourse if they had access to a partner. Other authors have explained that many of their participants have asserted that lack of a partner is an important factor influencing sexual activity and interest, especially in a nursing home environment (McCartney, Izeman, Rogers, & Cohen, 1987; Richardson & Lazur, 1995; White, 1982). The importance of examining married and unmarried persons separately has implications regarding the usefulness of results.

Research shows that a large percentage of older people remain interested in sexual activity, and experience no changes from former levels (Bergström-Walan, 1990;

Minichiello, Plummer & Seal, 1996). Problems with some of the aforementioned studies have combined married and unmarried couples in their analysis, which confounds their results. Furthermore, 'sexual interest' is undefined in previous literature, which does not enable a researcher, or a respondent to be sure what sexual interest really is: Is it interest in sexual intercourse, other sexual behaviours, or affectionate behaviours? There have been no studies that investigate whether interest in affectionate behaviours undergo changes in later life. The current study will examine changes in sexual interest and changes in interest in sexually expressive behaviours.

### Affectionate Sexual Expression

To explore the meaning of sexuality in later life, the present study aims to extend the research on sexuality by attempting to begin the search for what behaviours older people use to define affectionate sexual expression. There has not been a comprehensive study that explores the meaning of sexuality in later life. It has, however, been reported that ways in which people define sexual activity and sexual expression may differ between individuals. In conducting a community education program for people aged 65 years or older, Allen (1987) found that sexuality had different meanings for different individuals. Some believed sexuality meant close companionship; for others, it meant to touch and be touched; some associated sexuality with body image; and for others, it was synonymous with sexual activity and intercourse. Unfortunately the authors did not comment on how they received this information.

A major survey (Starr & Weiner, 1981) of 520 respondents aged 60 - 91 years, examined participants feelings about sexual activities. The study revealed that older people defined and expressed their sexuality in more diffuse and varied ways than did younger age groups, pointing out that changes in sexual expression and preferred sexual activity may be common with advancing age. Females expressed romantic concepts such as love, desire and kindness as an important part of sexual intercourse, while others suggested that body contact was the most exciting part of sexual intercourse. Although the questions in the Starr and Weiner study investigate more than just sexual intercourse, their questions were explicitly linked to the act of sexual intercourse. Other affectionate behaviours were not explored in isolation to sexual intercourse. Again the 13% response rate may suggest response bias.

Mulligan and Palguta (1991) found that only a minority of respondents with partners ( $N = 31$ ) had sexual intercourse at least monthly, however, nearly three quarters engaged in other sexual behaviours such as hugging and kissing at least monthly. Furthermore, the majority of participants engaged in sexually affectionate behaviours, but no longer engaged in vaginal intercourse. Those results highlight how the definition of sexuality can influence results. The respondents were not actively engaging in sexual intercourse, but may be obtaining some form of sexual satisfaction through their continued sexually expressive behaviours. How one defines "sexual activity" may have a dramatic impact on results if it were to encompass affectionate behaviours, not just sexual intercourse.

Bretschneider and McCoy (1988) highlighted the importance of affectionate sexual behaviours. The sample consisted of 202 healthy older persons living at a residential retirement facility, aged between 80 and 102 years. In that study, the most common sexual activity was touching and caressing without sexual intercourse. A larger percentage of men (83%) were more likely to have engaged in kissing and touching without sexual intercourse compared to women (64%). Those results could be confounded by the differential marital status of males (29%) to females (14%). Comparing those two groups confounds the data. More meaningful data could be obtained if married and cohabiting couples were treated as discrete groups when inquiring about all forms of sexual behaviour in later life.

A cross-sectional study of males aged 30 - 99 years by Mulligan and Moss (1991) found that sexual intercourse was preferred to other sexual forms of sexual contact. Other forms of sexual contact included kissing, petting, oral sex, partner masturbation and self-masturbation. The authors concluded that although the sample surveyed preferred sexual intercourse, they did not engage in other forms of sexual activity when the frequency of sexual intercourse declined. The results suggested decreases in frequency of touching or caressing and sexual intercourse with increasing age. Although both results were significant, the degree of the decline of touching and caressing was not as prominent as the decline of frequency of sexual intercourse activity. The cross-sectional nature of that study does not enable a casual relationship to be demonstrated.

Due to the preliminary nature of the research concerning affectionate sexuality in later life, the results in this area are primarily descriptive in nature. The results do suggest that older adults are engaging in affectionate behaviours, and in some samples to a greater degree than sexual intercourse (Bretschneider & McCoy, 1988; Mulligan & Palguta, 1991). Other studies (Allen, 1987; Starr & Weiner, 1981) suggested that older people define sexuality in diffuse ways, which may also vary between younger and older age groups of older people. It is therefore possible that different age groups may have different basal levels of affectionate behaviours. When investigating declines in affectionate behaviours, it may be useful to ask respondents retrospectively if they believe their levels have changed.

### Significance of the Present Study

Previous research of sexuality in later life lacks investigation into affectionate and intimate aspects of sexual expression. Sexuality is a complex and multidimensional facet of human reality and the research should reflect this. The research regarding sexuality now requires a new outlook, one that encompasses broader issues of sexuality. Many authors have discussed the need to incorporate more affectionate aspects of sexual expression when researching sexuality in later life (Badeau, 1995; Deacon, Minichiello, & Plummer, 1995; Fookan, 1994; Minichiello, Plummer & Seal, 1996; Minichiello, Plummer & Waite et al., 1996; Schiavi et al., 1994). Western society links sexuality and romance with youth, beauty and physical attractiveness. The physical changes associated with ageing are generally perceived as decreasing



desirability and sexual activity (Minichiello, Plummer & Waite et al., 1996; Parke, 1991). Sexual activity among older adults is labelled as abnormal and seen as 'problem' behaviour (Booth, 1990; Dickey, 1989; Parke, 1991). The present study seeks to normalise sexual behaviour by demonstrating that affectionate sexual behaviour is a form of sexual expression, and that older people regularly engage those types of behaviours as opposed to sexual intercourse.

Some authors have described a self-fulfilling prophecy, whereby, older adults accept the social attitudes, and they themselves conform to the perception of being asexual (Butler et al., 1994; Covey, 1989; Drench & Losee, 1996; Hodson & Skeene, 1994; Robinson, 1983). Robinson (1983) outlined constraints on sexuality in the later years as being related to sexual behaviour defined as sexual intercourse, a heterosexual married relationship and socially defined negative sanctions against sexuality in old age. With these assumptions, the opportunities for ongoing sexual development are limited.

Examining affectionate behaviours in relation to sexuality is an important part of redefining what constitutes sexuality in later life. Surveys of sexual behaviour and sexual intercourse are beginning to shape what is being taken as facts, where a decrease in sexual intercourse behaviour is interpreted as asexuality in the elderly. There is a need for in-depth explorations of the complex and intertwined factors involved in the maintenance or change in sexual behaviour across the life span, however, this is a task that the present study does not attempt to accomplish.

Nevertheless, the present study aims to compare sexual intercourse figures with affectionate sexuality figures to provide preliminary information on an area that has not been the focus of study in current literature. This information may highlight other limitations of previous literature that has examined a narrow focus of the prevalence of sexual intercourse and other sexual behaviours.

Once the definition of sexuality is broadened beyond the traditional conception of sexuality being sexual activity (more commonly thought of as sexual intercourse), the potential for sexual fulfilment in the later years may be more easily achieved. With the acknowledgement that sexuality is more than sexual activity, and a move beyond the narrow focus of sexual intercourse, positive aspects of affectionate sexuality in the later years emerge. Romance and intimacy, both regarded as being behaviours reserved primarily for the young, may become meaningful for older adults. Robinson (1983, p. 96) suggested over 15 years ago:

... the more romantic, sentimental, and tender aspects of sexuality may become salient again, in the later years, when affectionate relationships include, but transcend, physical expressions of love through sexual intercourse (Broderick, 1978). Reedy (1978) reports some of the positive aspects of growing old together in a love relationship; although sexual intimacy may be less centrally important, it may be better- warmer and mellowed- with affectionate embraces becoming more important.

That quote demonstrates how affectionate aspects of sexuality may take precedence

over overt sexual activities in later life. Further support for the importance of affectionate sexual expression may be provided by the theory of sexual integrity (McFarlane & Rubenfeld, 1983), whereby the affectionate aspects of sexuality are more meaningful to sexual expression in later life. The theory of sexual integrity emphasises the importance of less overt displays of sexuality, suggesting that later life is the ideal time for sexual integration, given that older people are usually not restricted by the demands of work, reproduction, raising their own family, and have opportunities for increased leisure. It is unfortunate that research has not followed this avenue of investigation. Rather, as is apparent for much of the literature of ageing, the research has continued with trying to understand older people, by using a taxonomy that may be more appropriate for younger people.

The call for more research in this area demonstrates that affectionate sexual expression is beginning to be recognised as an integral part of sexuality among older adults. As Finkle (cited in Butler, Finkle, Lewis, Sherman, & Sunderland, 1992, p. 63) stated:

I think attitudes have changed in the last 15 to 20 years. Whereas then sexuality in the elderly was not dealt with at all, now intimacy is at least acknowledged. There has been some softening in the bias against sexuality in the elderly, but more needs to be done in this respect.

Affectionate sexuality and other forms of sexual expression have received only cursory investigation in current research. It is time that research begins to examine a new area of sexuality research, which seeks to demonstrate that older people do remain sexual

beings. Much more emphasis needs to be placed on promoting the positive side of ageing, rather than describing how older people become asexual by emphasising the ongoing intimate and affectionate aspects of sexuality in later life.

Sexuality needs to be considered as a component of identity rather than a set of quantifiable practices. Sexuality research and ageing needs to expand and move beyond a focus on the 'private processes of the bedroom'. This study proposes that it will be among the first to do this. Research in the area of affectionate sexual expression will provide opportunities to explore the relationship between sexual expression and sexual intercourse that will contribute to a fuller conceptualisation of sexuality as related to social interaction not simply to physical body activities. This seems a more accurate conceptualisation of sexuality in everyday life as opposed to the narrow operationalised definitions of sexuality evident in much of the literature. Research in the area of how the elderly express themselves through affectionate means and the relationship between sexual expression and sexual intercourse will encompass the multidimensional nature of sexuality. Previous literature has focused on the more negative aspects of sexuality in later life, revealing how the older adult is doomed to an end of sexual functioning. However, this study will attempt to show that affectionate sexual expression in older adults does not necessarily decrease with age.

### Purpose of the Proposed Study

Given that there is limited information on what constitutes affectionate and intimate expressions of sexuality in later life, the present study will be exploratory, in

that it hopes to provide information on what is affectionate sexual expression, and whether older adults engage in sexually expressive behaviours. Past literature has demonstrated a link between increasing age and decreasing sexual intercourse frequencies and sexual interest. By examining the relationship between sexual intercourse and affectionate sexual expression, one may be able to see whether there is differential relationship with affectionate expression verses sexual intercourse in later life. The present research aims to examine if affectionate behaviour decreases or increases with age, and compare this to levels of sexual intercourse. The main purposes then of the proposed study are:

1. Provide data to test the assumption of the asexual older person in a Western Australian sample.
2. Provide exploratory data on the behaviours that commonly constitute affectionate sexual expression.
3. Test the concept of declining sexual interest in older persons with regard to whether affectionate sexual expression also declines.
4. Test if previous predictors from past literature on sexual activity also predict whether or not a person engages in affectionate sexual expression.

### Research Questions

The present study will increase the knowledge of what behaviours older people consider as forms of affectionate sexual expression. It will also move beyond the traditional research in this area that qualifies a person as a sexual being, only if they are actively having sexual intercourse. The proposed study aims to answer the

following research questions:

1. How do older adults define affectionate sexual expression?
2. Is there a greater degree of affectionate sexual expression than sexual intercourse in older adults?
3. Does interest in sexual intercourse decline with age when compared to interest in sexually expressive behaviours?
4. Does age, gender, self-reported health and spouse's health predict changes in sexual intercourse but not changes in affectionate sexual expression since 50 years of age?
5. Does age, gender, self-reported health and spouse's health predict frequency of sexual intercourse but not frequency of affectionate sexual expression?

The results are expected to demonstrate that affectionate sexual expression is robust and is not related to age or the variables that predict sexual activity. The expected results will challenge traditional definitions of sexuality and provide evidence to dispute assumptions of asexuality in later life. This study will increase the knowledge base of sexuality research with the aged and open avenues for further investigation and practical applications. This information will extend previous definitions of sexual behaviour and will offer more information about sexuality in later life that can be incorporated into education programs for health care professionals and older adults themselves. The changing nature of sexuality in later life can be emphasised, and a challenge mounted to the traditional conceptualisation that sexual

intercourse equates with being sexually active. The checklist developed may also be used as an investigative tool, to identify what sexually expressive behaviours people are engaging in and give examples of other behaviours they may wish to do. This information will provide current knowledge of an alternative form of being sexual.

## Method

### Participants

Participants were drawn from a variety of services such as: senior citizen centres, bowling clubs, university of the third age, the independent retirees council, residential retirement villages, the National Seniors Association, Prime Movers Aerobic Clubs, volunteer groups and from newspaper advertisements. Although the sample is not representative, the different organisations were approached to provide a good cross-section of participants who possibly would have different perceptions of sexuality. There was a 34% response rate. The sample consisted of 85 older people who primarily resided in the northern suburbs of Perth, Western Australia. Eight incomplete questionnaires were omitted, resulting in a final sample size of 77 (35 males and 42 females). The number of participants is adequate for the multiple regression analyses conducted in this study, allowing for a medium effect size (Cohen, 1992).

All participants had a partner, 94% of the sample were married, 4% living with a partner, and 2% considered themselves defacto. Respondents were aged between 60 and 89 years, with an average age of 70.78 years ( $SD = 6.49$ ). The mean age for males was 73.09 years ( $SD = 6.15$ ) and females had a mean age of 68.88 years ( $SD = 6.19$ ). The level of education varied, 7% completed primary school, 41% completed some high school, 28% were high school graduates, 11% completed some university studies, 12% were university graduates, and only one respondent (1%) had an advanced degree. The main source of income for 54% of the sample was the pension. Over half of the



sample (56%) were comfortable with their level of income, while 39% worried about money a little, and 5% worried about money a lot. Most respondents perceived their health to be excellent (13%), very good (35%), or good (39%), while only 13% reported that their level of health was fair. There were no responses for the self-reported health category of poor. Respondents rated their partner's health as poorer than their own: excellent (1%), very good (33%), good (36%), fair (22%), and poor (8%).

### Questionnaire Development

The Affectionate Sexual Expression items was developed after extensive review of empirical and discussion articles. Any behaviour that was suggested as forms of sexual expression were noted and collated. A list of behaviours that were generated are presented in Appendix A. Those behaviours or activities were grouped into categories and each category was collapsed to form one item. The majority of items had more than one example describing a general category of a sexually expressive or affectionate behaviour. There were 20 items that formed the Affectionate Sexual Expression Scale. See Appendix B for the list of 20 items.

The Affectionate Sexual Expression items were arranged to form a frequency scale and a checklist, with the same items contained in each scale. The Affectionate Sexual Expression Frequency Scale was developed to provide an indication of how frequently the respondents engaged in these sexually expressive behaviours. The responses for the Affectionate Sexual Expression Frequency Scale were presented in a

likert scale ranging from 0 (never, or less than once a year), 1 (seldom or less than once a year), 2 (sometimes or several times a year), 3 (regularly or several times a month), 4 (often or several times a week), and 5 (very often or daily). The Affectionate Sexual Expression Checklist Scale was developed to provide an opportunity for respondents to agree or disagree that the item was a form of affectionate sexual expression. Responses were presented in a yes/no format.

Eight demographic questions were included to gather respondent information in the areas of age, gender, marital status, education, income, health and health of spouse. The question of marital status was used as a screening question, to ensure that all participants were in a relationship where they cohabited with their partner or spouse.

Another section asked questions regarding the participants sexual experiences including: (1) an overall rating of how often participants engage in sexually expressive behaviours and frequency of sexual intercourse in the last 12 months (responses were measured on the aforementioned likert scale used in the Affectionate Sexual Expression Frequency Scale); (2) whether their level of affectionate sexual expression, sexual intercourse, sexual interest had changed since mid-life; and (3) whether their level of interest in affectionate sexual expression and sexual intercourse had changed since mid-life. The questions were asked separately for the all of those areas, and responses were rated as increased, decreased or remained the same. Lastly, (4) participants were asked if they were currently sexually active by the following question: “Some people in their later years remain sexually active while others do not.

Are you currently in a relationship where you have sexual intercourse? (yes/no). At the end of each section (excluding the demographic information), respondents were asked to provide general comments, or comments about the items.

Questions that investigated changes in affectionate sexual expression, sexual intercourse and sexual interest since the age of 50 years, and the importance of affectionate sexual expression, intercourse and interest to their well-being, were based on those asked by Minichiello, Plummer and Deacon (1996). The item that asked if a participant was currently sexually active was modified from Matthias et al. (1997). Matthias et al. (1997) asked if the respondents were in a sexual relationship, whereas the current study asked “are you in a relationship where you have sexual intercourse?”

### Pilot Study

A pilot study of the questionnaire was implemented to check the wording of the questionnaire and face validity of the items. A chapter of the University of the Third Age was approached to complete the pilot study. After reviewing all the surveys, it was decided that the sections of the questionnaire would be reordered. The questionnaire consisted of four sections, (1) demographics, (2) Affectionate Sexual Expression Frequency checklist, (3) Affectionate Sexual Expression Checklist and (4) sexual experience questions. Following the pilot study the order of the second and third sections were changed about. This was done as some respondents commented that they did not agree that all the items were forms of affectionate sexual expression. It was decided that by placing the Affectionate Sexual Expression Checklist first

respondents would have the opportunity to agree or disagree with the items as being a form of affectionate sexual expression. The frequency checklist would then follow that, where respondents were instructed to answer all items.

The wording of two items was changed. Comments made on item 7, (sensual activities: going to the hairdresser, wearing lingerie, grooming) led to the exclusion of the descriptor going to the hairdresser. Item 19 (a feeling of comfort, warmth, tenderness, being close, oneness) was changed to a feeling of comfort, warmth, tenderness, being emotionally close. An additional item was included in the last section on sexual experiences: “Has your ability to have sexual intercourse, or access to a willing sexual partner changed since you were 50 years old?” This was created, as there were a few comments from the pilot study that suggested that respondents wanted to acknowledge if they or their partner were unable to have sexual intercourse. Despite that item having two possible answers, the important information would still be obtained that respondents’ circumstances did not allow them to engage in sexual intercourse.

### Questionnaire

The modified pilot study resulted in the development of the Relationships and Intimacy in Later Life Questionnaire (Appendix C). The questionnaire comprised of 59 items, which formed four sections. The first section consisted of the eight demographic questions described previously. The second section was the Affectionate Sexual Expression Checklist, followed by the Affectionate Sexual Expression

Frequency Scale and the sexual experience information. Several older people and academics with an interest in ageing and sexuality in later life scrutinised the questionnaire with the outcome being that no further revisions were needed.

### Procedure

Appointments were made with various senior organisations (senior citizen centres, bowling clubs, university of the third age, the independent retirees council, residential retirement villages, the National Seniors Association, prime movers aerobic clubs, volunteer groups and from newspaper advertisements). The researcher went along to these groups and explained the study herself, or enlisted the help of the group leader to distribute the questionnaire. The researcher gave the group leaders an information sheet that detailed what they were required to say in order to procure potential participants. The researcher followed the same information sheet when individual groups were approached. The information sheet introduced who the researcher was, and briefly stated the aim of the project. Potential participants were advised that the information gathered would be used in a thesis paper, may be submitted for publication and that participation was voluntary and anonymous.

The sections contained in the questionnaire were outlined, and participants were able to ask questions. Alternatively, a contact number of the researcher and her supervisor were given if people wanted to remain completely anonymous and call later. Potential participants were instructed that they had to be in a married or cohabiting relationship, and be over 60 years of age in order to comply with the studies

selection criteria. They were informed that only one person per couple<sup>2</sup> was required to complete the questionnaire, and the contact number for Relationships Australia was supplied, so they could contact them if they wanted to further discuss any personal issues. Furthermore, this information was contained on an information sheet, prior to the questionnaire and consent form, which participants could keep (see Appendix D for the information sheet and Appendix E for the consent form).

Responses were either returned to the researcher in a pre-paid addressed envelope provided, or were returned to a sealed box provided. The sealed box for returned questionnaires were provided at retirement villages, and were placed in a discrete corner near the reception area. The researcher collected these boxes approximately one week after the questionnaires had been distributed.

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<sup>2</sup>Participants recruited through some organisations (e.g., University of the Third Age, Sporting Clubs) were approached as individuals and not as couples. Therefore to maintain consistency, it was decided by the author and her supervisor that only one partner was to be recruited across other organisations (e.g., retirement homes). Although this design has some limitations, it also carried with it some advantages. In particular, approaching individuals maximised the response rate, as any one partner could participate, sampling wasn't limited to only couples that were both willing to participate; and the respondents could participate on their own behalf when approached. Furthermore, the independence of answers was increased.

## Results

The results will be presented in sections that correspond with the research questions:

1. Definition of affectionate sexual expression,
2. Is there a greater degree of affectionate sexual expression or sexual intercourse in older adults?
3. Does interest in sexual intercourse or sexually expressive behaviours decline with age?
4. Do the variables age, gender, health and health of spouse predict the criterion variable? (changes in sexual intercourse or affectionate sexual expression since mid-life, frequency of sexual intercourse in the last 12 months, and level of affectionate sexual expression).

### How is Affectionate Sexual Expression Defined?

In order to answer the first research question regarding the definition of affectionate sexual expression in later life, the responses from the Affectionate Sexual Expression Checklist were examined. Table 1 displays the percentages of males, females, and the total sample that agreed that the particular items were forms of affectionate sexual expression. The majority of items had over 50% agreement that they were forms of affectionate sexual expression except reading or viewing erotic material, fantasising about your partner or another person, and sensual activities. Two items (physical contact with family, friends and/or pets and positive self image) had a

lower than 50% agreement by men, however the item was included as the majority of women believed they were a form of affectionate sexual expression.

Table 1  
Gender Breakdown of Agreement that Items on the Affectionate Sexual Expression Checklist are Forms of Affectionate Sexual Expression.

Affectionate Sexual Expression Checklist Item	% Agree		% Total Agree
	Male	Female	
1. Communicating and acting in a loving way.	82.9	88.1	87.0
2. Physical contact, touching, caressing, cuddling.	88.6	95.2	92.2
3. Emotional Intimacy: affection.	60.0	83.3	72.7
4. Kissing, petting.	77.1	95.2	87.0
5. Reading or viewing erotic material.	37.1	19.0	27.3
6. Fantasising about your partner or other person.	48.6	31.0	39.0
7. Sensual activities: wearing lingerie, grooming.	20.0	47.6	35.1
8. Feeling attractive and desired.	57.1	85.7	72.7
9. Being nude or bathing with your partner.	51.4	52.4	51.9
10. Feeling sexy or beautiful.	51.4	57.1	54.5
11. Being massaged or massaging your partner.	60.0	50.0	54.5
12. Sharing and caring for your partner.	80.0	83.3	81.8
13. Holding hands with your partner.	68.6	83.3	76.6
14. Trusting your partner.	68.6	76.2	72.7
15. Going out with your partner, eating, dancing.	74.3	71.4	72.7
16. Physical contact with family, friends and/or pets.	34.3	54.8	45.5
17. Relationship satisfaction: friendship.	51.4	76.2	64.9
18. Positive self-image, self esteem.	40.0	69.0	55.8
19. A feeling of comfort, warmth, tenderness.	74.3	88.1	81.1
20. Romance, courtship.	60.0	73.8	67.5

Note. For complete wording of item see Appendix B. N = 77

To assess whether affectionate sexual expression could be measured by a reliable scale, an SPSS\* reliability analysis was performed to check the internal consistency of the scale and to aid in the development of the shortest and most reliable scale. Data from the Affectionate Sexual Expression Frequency Scale was used (N = 72), and resulted in a Cronbach's alpha of .9172 (see Appendix F). Two items (fantasising



about your partner or another and sensual activities) had item-total correlations under .30. One item (reading or viewing erotic material) had an item-total correlation slightly in excess of .30. Those three aforementioned items were omitted which is consistent with the results from the Affectionate Sexual Expression Checklist that had low levels of agreement that those items were forms of affectionate sexual expression. An additional reliability analysis was conducted on the 17 remaining items, resulted in a Cronbach's alpha of .9287 (see Appendix G). All items in the 17 item Affectionate Sexual Expression Frequency Scale had adequate item-total correlations and inspection of alpha if item deleted coefficients did not show any items that would improve the reliability if deleted. This demonstrates that the scale is highly reliable and internally consistent. The Modified Affectionate Sexual Expression Scale (MASES) containing the final 17-items is used in all later analyses where appropriate.

To provide a description of what types of affectionate behaviours the respondents were engaging in, the average frequency of the MASES is presented in Table 2. A gender breakdown of the individual response categories and the relative frequency is provided in Appendix H. Some items showed gender differences in patterns of responding, but overall there were similar means between the sexes. Only two items (being nude or bathing with your partner and being massaged or massaging your partner) scored below 2, representing that those behaviours occurred once to several times a year.

To examine gender differences between summed Affectionate Sexual Expression

Frequency levels, an independent samples t-test was conducted. Those cases that did not answer all of the items were excluded from this analysis. The responses to the individual items were summed to provide a total score out of 120. The average total score for males (n = 20) was 51.30 (SD = 15.98), 55.64 for females (n = 25; SD = 16.32). The total scores were used to determine if there were gender differences in their level of frequency. There were no significant differences between males and females on their total score on the Affectionate Sexual Expression Frequency Scale,  $t(43) = -.897, p = .759$ .

Table 2.  
Mean Scores for Frequency of Affectionate Sexual Expression.

Affectionate Sexual Expression Frequency Item	<u>M</u>	<u>SD</u>	<u>N</u>
1. Communicating and acting in a loving way.	4.11	1.22	76
2. Physical contact, touching, caressing, cuddling.	3.99	1.29	74
3. Emotional Intimacy: affection.	3.61	1.58	66
4. Kissing, petting.	3.61	1.59	74
5. Feeling attractive and desired.	2.55	1.49	65
6. Being nude or bathing with your partner.	1.74	1.85	69
7. Feeling sexy or beautiful.	2.12	1.59	59
8. Being massaged or massaging your partner.	1.34	1.51	68
9. Sharing and caring for your partner.	4.27	1.08	75
10. Holding hands with your partner.	3.51	1.55	73
11. Trusting your partner.	4.59	1.11	74
12. Going out with your partner, eating, dancing.	3.08	1.12	76
13. Physical contact with family, friends and/or pets.	3.28	1.23	68
14. Relationship satisfaction: friendship.	4.25	1.12	73
15. Positive self-image, self esteem.	3.65	1.16	68
16. A feeling of comfort, warmth, tenderness.	4.15	1.08	72
17. Romance, courtship.	2.48	1.13	65

Note. Scores range from 0 to 5, where higher scores indicate a higher frequency.

Is there a Greater Degree of Sexual Activity or Affectionate Sexual Expression in Later Life?

To assess whether there is a greater degree of sexual intercourse or affectionate sexual expression in later life, descriptive statistics showed that 77% of respondents had sexual intercourse in the past year at least once. However, a large majority (67%) reported that they engaged in sexual intercourse several times a year or more, while an overwhelming majority (94%) engaged in affectionate sexually expressive behaviours several times a year or more. Table 3 provides the results from the response categories regarding frequency of sexual intercourse and level of affectionate sexual expression.

Table 3  
Percentage Breakdown of Response Categories for Frequency of Sexual Intercourse and Affectionate Sexual Expression.

Response Category	Percent Responding	
	Frequency of Sexual Intercourse <sup>1</sup>	Level of ASE <sup>2</sup>
Never / Less Than Once a Year.	23.2	5.7
Seldom / Once a Year.	10.1	0.0
Sometimes / Several Times a Year.	23.2	9.4
Regularly / Several Times a Month.	26.1	24.5
Often / Several Times a Week.	13.1	26.4
Very Often / Daily.	4.3	34.0
<u>M</u>	2.09	3.68
<u>SD</u>	1.49	1.34

Note. ASE = Affectionate Sexual Expression. <sup>1</sup> N = 69, <sup>2</sup> N = 53

A paired sample t-test was performed to determine if there were any significant differences between levels of sexual intercourse and affectionate sexual expression. The average sexual intercourse frequency score was 2.09 (SD = 1.49). The average

level of affectionate sexual expression was higher ( $M = 3.68$ ,  $SD = .1.34$ ). Results of the t-test showed that participants were engaging in sexually expressive behaviours significantly more often than sexual intercourse,  $t(48) = 6.259$ ,  $p = .000$ .

### Does Interest in Sexual Intercourse Decline with Age Compared to Interest in Affectionate Sexual Expression?

To answer the research question of whether interest in sexual intercourse and interest in ASE had changed since the age of 50 years, a Wilcoxon Signed Ranks for related pairs test was performed. The response categories were coded as -1 (decrease), 0 (no change) and 1 (increased). The mean score for a change in sexual interest was  $-.52$  ( $SD = .64$ ), whilst the mean was  $-.27$  ( $SD = .66$ ) for changes in interest of affectionate sexual expression. Sixty percent of the sample ( $N = 75$ ) reported a decrease in engaging in sexual intercourse, while 32% reported no change and 8% reported an increase in their interest in having sexual intercourse since the age of 50 years. In comparison, 39% of the total sample reported decreases in their affectionate sexual expression levels, while 49% reported no change, and 12% reported increases in their level of affectionate sexual expression since mid-life. The results of the Wilcoxon Signed Ranks Test were significant,  $Z = -3.283$ ,  $p = .001$ , suggesting that decreases in interest in sexual intercourse since the age of 50 years occurred significantly more often than changes in interest in affectionate sexual expression.

### Predictors

A standard multiple regression was performed separately for each criterion

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### Predictors

A standard multiple regression was performed separately for each criterion

variable:

1. Reported changes in sexual intercourse since the age of 50 years,
2. Reported changes in the level of affectionate sexual expression since the age of 50 years,
3. Frequency of sexual intercourse in the last 12 months, and
4. Frequency of affectionate sexual expression in the last 12 months.

The predictor variables for each of these analyses (age, gender, self-reported health and reported health of spouse) were entered altogether.

Prior to analysis, age, gender, health of self, health of spouse, frequency of sexual intercourse, and changes in sexual intercourse or affectionate sexual expression were examined for accuracy of data entry, missing values, and fit between their distributions and the assumptions of multivariate analysis. Seven cases were deleted due to incomplete questionnaires, which was set at more than eight unanswered items. Data was screened using Mahalanobis distance scores (set at  $p < .001$ ), perusal of residual scatterplots, normal probability scatterplots and standardised residual scores. Two cases had large standardised residual scores in excess of 3.0 in the changes in the frequency of sexual intercourse, and frequency of affectionate sexual expression analyses. The data was inspected for incorrect information entry, however this had not occurred. It was decided that they would remain in the analysis as Tabachnik and Fidell (1989) proposed that if outliers are deemed to be a part of the intended sample population, they can remain in the sample. Therefore, results of evaluation of assumptions led to no changes of the data.

Prediction of Changes in Sexual Intercourse Frequency Since the Age of 50 Years.

The results of the standard regression analysis performed between the criterion changes in levels of sexual intercourse since the age of 50 years and the predictors of age, gender, self-reported health and reported health of spouse are presented in Table 4. The correlations between the variables, the unstandardised regression coefficients(B) and intercept, the standardised regression coefficients ( $\beta$ ), R, R<sup>2</sup>, and adjusted R<sup>2</sup> are also displayed. The R for regression was significantly different from zero,  $F(4,70) = 3.209$ ,  $p = .018$ . Only health of spouse made a significant unique contribution to the prediction of changes in frequency of sexual intercourse since the age of 50 years, where changes in sexual intercourse since the age of 50 are significantly less likely to occur if your spouse is of better health.

Table 4  
Standard Multiple Regression Results for Changes in Frequency of Sexual Intercourse since the Age of 50 Years.

Variable	Changes in SI (DV)	Age	Gender	Health	Spouse's Health	<u>B</u>	$\beta$
Age	-.165					-1.1E-02	-.126
Gender	.045	-.327**				4.7E-02	.040
Health	-.203	-.030	.095			-7.2E-02	-.107
Spouse's Health	-.355**	.092	.080	.310**		-.190**	-.312
					Intercept	.777	
<u>M</u>	-.71	70.78	1.55	2.52	3.03		
<u>SD</u>	.59	6.49	.50	.88	.96		
						<u>R</u> <sup>2</sup>	.155
						Adjusted R	.107
						<u>R</u>	.394*

Note. SI = Sexual Intercourse. N = 74. \*  $p < .05$  \*\*  $p < .001$

Prediction of Changes in Level of Affectionate Sexual Expression Since the Age of 50 Years.

The correlation matrix and associated statistics for the standard regression analysis performed between the DV of changes in affectionate sexual expression since the age of 50 years and the IVs of age, gender, self-reported health and reported health of spouse are presented in Table 5. The overall  $R$  was not significant,  $F(4,68) = 2.378$ ,  $p = .060$ . Those results show that changes in the level of affectionate sexual expression since the age of 50 years are not significantly associated with age, gender, health of self or one's spouse's health.

Table 5  
Standard Multiple Regression Results of Changes in Level of ASE Since the Age of 50 Years.

Variable	Changes in ASE (DV)	Age	Gender	Health	Spouse's Health	B	$\beta$
Age	-.029					-6.3E-05	.001
Gender	.005	-.327**				5.9E-02	.043
Health	-.188	-.030	.095			-7.3E-02	-.094
Spouse's Health	-.337**	.092	.080	.310**		-.219*	-.312
					Intercept	.308	
	<u>M</u>	-.45	70.78	1.55	2.52	3.03	
	<u>SD</u>	.69	6.49	.50	.88	.96	
						$R^2$	.123
						Adjusted R	.071
						R	.350

Note. ASE = Affectionate Sexual Expression. N = 72. \*  $p < .05$ . \*\*  $p < .01$ .

Prediction of Frequency of Sexual Intercourse.

The results of the standard regression analysis performed between frequency of sexual intercourse in the last 12 months and the four-predictor variables are presented in Table 6.  $R$  for regression was significantly different from zero,  $F(4,64) = 6.697$ ,  $p = .000$ , demonstrating that the combination of age, gender, health and health of spouse



significantly predict whether someone is sexually active. Age, gender and health of spouse made significant unique contributions to the prediction of frequency of sexual intercourse in the last 12 months being more common if one was of younger age, male and if spouse is in good health. Self-reported level of health was the only predictor variable that did not make a significant unique contribution.

Table 6  
Standard Multiple Regression Results for Frequency of Sexual Intercourse in the Last 12 Months.

Variable	Frequency of SI (DV)	Age	Gender	Health	Spouse's Health	B	β
Age	-.283					-8.7E-02**	-.362
Gender	-.120	-.327**				-.736*	-.248
Health	-.222	-.030	.095			-.184	-.109
Spouse's Health	-.404**	.092	.080	.310**		-.555**	-.343
					Intercept	11.409	
	M	2.09	70.78	1.55	2.52	3.03	
	SD	1.49	6.49	.50	.88	.96	
						R <sup>2</sup>	.295
						Adjusted R	.251
						R	.543**

Note. N = 72, \* p < .05, \*\* p < .01

Prediction of Frequency of Affectionate Sexual Expression.

The last standard regression analysis performed was between level of affectionate sexual expression and age, gender, self-reported health and spouse's health. Results are presented in Table 7. This regression did not produce a significant result,  $F(4, 48) = 1.265$ ,  $p = .297$ , suggesting that overall level of affectionate sexual expression is not associated with any of the predictor variables. Furthermore, none of the predictor variables made a significant unique contribution.

Table 7  
Standard Multiple Regression Results for Overall Frequency of ASE.

Variable	Frequency of ASE (DV)	Age	Gender	Health	Spouse's Health	B	$\beta$
Age	-.116					-2.8E-02	-.126
Gender	-.100	-.327**				-.440	-.160
Health	.233	-.030	.095			.376	.254
Spouse's Health	-.051	.092	.080	.310**		-.155	-.107
					Intercept	5.920	
<u>M</u>	3.68	70.78	1.55	2.52	3.03		
<u>SD</u>	1.34	6.49	.50	.88	.96		
						R <sup>2</sup>	.095
						Adjusted R	.020
						R	.309

Note. ASE = Affectionate Sexual Expression. N = 52. \*  $p < .05$  \*\*  $p < .01$

### Free Responses

Respondents provided comments regarding additional items that could be included in the scale. These included: verbal expressions of love and desire, communing with nature, having a spa, listening to music, enjoying the company of others, giving chocolates and flowers, live in personal growth programs and tantric exercises. It was decided with great confidence by the present author and her supervisor that the majority of these were already adequately covered in the MASES, and that those items were subsumed within the descriptors given for the different items. The personal growth and tantric exercises comments were not covered in the MASES. Those additional comments were interpreted as being highly specific and perhaps would not add any valuable information to the survey.

General comments at the end of the survey were grouped into two main themes:

(1) medical influences and (2) the importance of affectionate sexuality. Comments that referred to medical conditions described how their own medical problems or those

of their partner influenced sexual intercourse levels. These medical conditions included prostate problems, menopause, and impotency. Other more general comments included how medical conditions, health and physical problems reduced the ability to have sexual intercourse. The following quotes are examples of comments made: “I have a medical condition with my prostate. The medication I am on affects my sexual potency. My wife has gone through menopause and has lost interest in sex” (Male, 71 years), “ My husband has had prostate cancer, unable to have sex as in intercourse” (Female, 70 years), “Physical attributes have a bearing on too much intercourse in my case” (Male, 77 years), “Any decrease is due to medical conditions on both sides” (Female, 68 years), “Health has played a large part in our decrease of sexual expression” (Female, 60 years). The majority of comments were in reference to medical or health problems of males.

The importance of affectionate sexuality was another theme that emerged from the data. These included comments on how affection, love and respect were more important in later life than sexual intercourse. This is exemplified by the following quotes: “Love is the overriding force in later life” (Male, 72 years), “Whilst we are not able to engage in sexual intercourse, we still find pleasure in other expressions of love and re-assurance” (Male, 69 years), “Respect and affectionate consideration for one’s partner are the important things in maintaining a relationship in later life. Sexual activity is no longer an essential ingredient” (Female, 78 years). Comments were distributed evenly among the sexes, suggesting that both males and females acknowledge the importance of affectionate forms of sexuality in later life.

### Summary

The MASES demonstrated good reliability and internal consistency and included items that older people consistently report as being forms of affectionate sexual expression. Changes in sexual intercourse behaviour in comparison to changes in affectionate sexual expression levels demonstrated that sexual intercourse was significantly more likely to have decreased since the age of 50 years. Sexual activity was significantly predicted, whereas affectionate sexual expression was not. Therefore, the sociodemographic variables of age, gender, and health of spouse predicted sexual intercourse frequency but not affectionate sexual expression. General comments were grouped into two themes describing how medical conditions negatively influence sexual intercourse frequency, and how affectionate sexual expression is more important in later life.

## Discussion

The present study found that the majority of the items presented in the Affectionate Sexual Expression Checklist were accepted as being forms of affectionate sexual expression, suggesting that older people agree that affectionate sexual expression includes a large variety of behaviours and feelings. People engaged in affectionate sexual expression behaviours significantly more often than sexual intercourse. Decreases in interest in sexual intercourse since the age of 50 years was significantly more likely to occur than changes in interest in affectionate sexual expression. Poor health of spouse significantly predicted decreases in sexual intercourse frequency since mid-life and the overall regression model was significant. Health of spouse made a significant unique contribution in changes in affectionate sexual expression since mid-life, however the overall regression model was not significant. Health of spouse, younger age, and male gender made significant unique contributions to the prediction of a higher level of sexual intercourse, and the overall regression model was significant. As opposed to sexual intercourse frequency, the regression models for affectionate sexual expression were not significant, suggesting that factors that predict the decline of sexual intercourse frequency are inconsistent with those that predict affectionate sexual expression levels in later life. Further discussion will be presented in sections that address each of the research questions.

### How is Affectionate Sexual Expression Defined in Later Life?

There was a strong consensus on which items on the MASES checklist were

considered to be forms of affectionate sexual expression. Of the 20-item scale, only three items (reading or viewing erotic material, fantasising about your partner or other person, and sensual activities, respectively) had less than 50% of the total sample agree that they were forms of affectionate sexual expression. The rejection of those three items as being forms of affectionate sexual expression was a surprising finding, given that a number of authors (e.g., Badeau, 1995; Bretschneider & McCoy, 1988; Creti & Libman, 1989; Roughan et al., 1993; Starr & Weiner, 1981) have stated that erotica, fantasy and sensual activities would be forms of sexual expression for older adults. This highlights the importance of the present study in identifying behaviours that are relevant to the definition of affectionate sexual expression for older people themselves. There have been no other studies that have comprehensively investigated what constitutes affectionate forms of sexual expression in later life. This exploratory study has provided a framework on which others can build on in future research.

The MASES included examples of individual and partnered activities (kissing and petting, being massaged, and holding hands), covert behaviours (feeling of comfort and worth, communicating and acting in a loving way), motivational states of sexual experiences (feeling attractive and desired, feeling sexy or beautiful) and one's own perception of the sexual experience (trusting your partner, positive self esteem, and relationship satisfaction). These items are consistent with, and provide support for the proposed definition of affectionate sexuality. The MASES assists in the understanding of what behaviours are indicative of affectionate forms of sexuality in older adults. The development of the MASES acknowledges that sexuality is more than just sexual

intercourse, moving beyond the narrow focus of sexual intercourse, emphasising the more positive aspects of affectionate sexual expression.

There were no significant differences between the sexes in their summed affectionate sexual expression scores. That suggests that males and females engage in similar levels of sexually affectionate behaviours and that MASES is not gender specific. The three highest scored items were common to both sexes (physical contact, communicating and acting in a loving way, and sharing and caring for your partner). These results are consistent with results from the MASES checklist, where those items received high rates of agreement that they were forms of affectionate sexuality. It is apparent that there were gender differences in responses to some of the MASES items, which demonstrates that there are a few behaviours which males engage in more often than females, however, the overall level of affectionate sexual expression did not significantly differ. Both men and women regularly engage in affectionate sexual behaviours, which reinforces that those behaviours are important parts of everyday functioning. This is consistent with the theory of sexual integrity (McFarlane & Rubinfeld, 1983) which implies that ongoing sexual development leads to a sexually integrated person.

### Is there a Greater Degree of Sexual Activity or Affectionate Sexual Expression in Older Adults?

Respondent's average frequency of affectionate sexual expression was significantly higher than their frequency of sexual intercourse. The majority of the

sample (85%) engaged in affectionate forms of behaviour at least several times a month, compared to 44% who had sexual intercourse several times a month or more. These results are consistent with Mulligan and Palguta (1991) who reported that a higher percentage of their sample engaged in other sexual behaviours such as hugging and kissing (73%) than in sexual intercourse (17%) at least monthly. Furthermore, Mulligan and Moss (1991) found that touching or caressing was the most frequently engaged in behaviour for 60 - 99 year olds when compared with other forms of sexual behaviour (i.e., sexual intercourse, oral sex and masturbation). This is consistent with the present study that found a significantly higher incidence of affectionate sexual expression than sexual intercourse.

Although affectionate forms of sexual expression are more common, one can not disregard that a large percentage of older people remained sexually active. While 77% of the sample reported that they had sexual intercourse at least once in the last year, only 44% engaged in sexual intercourse at least several times in the last month. North American studies have reported that 23% to 53% of their older samples were currently sexually active (Bergström-Walan & Nielsen, 1990; Matthias et al., 1997; Marsiglio & Donnelly, 1991). Matthias et al. (1997) reported that 31% of his married sample of men and women aged 70 years or older had sexual intercourse in the last month. The present study's rate of 77% is considerably higher than North American estimates, but it is similar to an Australian study by Minichiello, Plummer and Seal (1996) who reported that 63% their married respondents (aged 65 to 80 years and older) were currently sexually active (defined as having had sexual intercourse in the last 12



months). Directly comparing these levels may be problematic due to the use of multiple measures or survey items that assess whether someone is sexually active. However, the present study used a similar item as Minichiello, Plummer and Seal (1996) to determine if couples were in a sexual relationship, as defined by engaging in sexual intercourse within the last year.

These results suggest that older people remain sexually active by engaging in affectionate forms of behaviour, whilst frequency of sexual intercourse decreases. When the level of sexual intercourse in the past month (44%) is compared to level of affectionate sexual expression behaviours, the percentage almost doubles to 85%. This has important implications regarding how sexual activity is defined. Much of the literature reviewed here determined sexual activity by examining whether a respondent had engaged in sexual intercourse in the last month. If that were the case here, instead of the majority (77%) being active in the last 12 months, only 44% of respondents would be identified as being sexually active. As affectionate behaviours are more prevalent than sexual intercourse behaviours, the definition of sexual activity needs to expand to include affectionate behaviours and perhaps increase the length of time that defines someone as currently sexually active. The definition of sexual activity needs to reflect the multidimensional nature of sexuality and encompass behaviour of a longer period of time. This would then incorporate the more positive aspects of sexuality in later life, and move away from the stereotypical and ageist views that deny older people a sexual existence. By linking affectionate aspects of sexuality within a definition of sexual activity, it could also promote and emphasise aspects of sexual

integrity.

These results emphasise support for the theory of sexual integrity (McFarlane & Rubenfeld, 1983) which highlights the need to integrate affectionate aspects of sexuality and promotes a positive side of sexuality in later life. This is in contrast to theory of disengagement (Cumming & Henry, 1961) and the geriatric sexuality breakdown syndrome (Kaas, 1981) that suggest that older people are predisposed to decreased sexual expression. McFarlane and Rubenfeld (1983) stressed that one does not need to experience sexual intercourse to be sexually integrated. Persons who have no desire or ability to engage in sexual intercourse can still engage in interpersonal relationships or provide emotional support and care and improve their level of sexual integrity. While the respondents in this study are not as sexually active as they are sexually expressive, they are still engaging in behaviours that promote sexual integrity. Future research could further establish the theory of sexual integrity by examining variables that determine an individual's proximity to sexual integrity at any given time.

#### Does Interest in Sexual Intercourse Decline with Age Compared to Interest in Affectionate Sexual Expression?

The present study showed that decreases in interest of sexual intercourse since the age of 50 years occurred significantly more often than changes in interest in affectionate sexual expression since mid-life. This comparison between interest in sexual intercourse and affectionate sexual expression provides important information that demonstrates the differential relationship between sexual intercourse and

affectionate sexual expression. This may be illustrated by the results that 60% of the sample reported decreases in interest in sexual intercourse, whilst 39% reported decline in interest in affectionate sexual expression. The majority of respondents reported that their interest in sexual intercourse had decreased since the age of 50 years, while their interest in affectionate sexual expression had not changed. The prevalence of changes in the level of interest of affectionate sexual expression has not been reported before in the literature, so these are exciting preliminary results.

Changes of interest in sexual intercourse and affectionate sexual expression could reflect the relative importance of these behaviours, where lowered interest could indicate less importance. This general idea of importance of those behaviours is supported by some of the comments made by respondents that stated how affectionate forms of sexual expression are more important than the act of sexual intercourse. These results have important implications regarding how sexual expression is defined in later life: if interest and importance of sexual intercourse is lower than for affectionate sexual expression, affectionate behaviours should be the primary measure of an older persons level of sexuality. Further research could investigate the relationship between interest and the importance of sexual intercourse and affectionate sexual expression in later life, to examine if there is a greater importance attached to affectionate sexual expression behaviours in later life as opposed to sexual intercourse.

The finding that the majority of respondents reported decreases in interest in sexual intercourse is consistent with previous work. Studies that used retrospective

self-report to determine changes in sexual interest have found that sexual interest was negatively correlated with age (Bretschneider & McCoy, 1988), that males had greater sexual interest than females (Minichiello, Plummer & Seal, 1996) and a cross-sectional study found that older men had a significantly lower level of sexual interest than younger men (Mulligan & Palguta, 1991). Mulligan and Moss (1991) commented that their sample reported a reduction of sexual interest compared to younger years. The results of the present study are consistent with those studies, and additionally this study provides preliminary information about changes in interest of affectionate sexual expression since mid-life. Further research could compare levels of sexual interest between older adults aged 60 years and over with adults aged 50 years to investigate these changes in more depth.

It is important to note that a small number of respondents reported that their interest in sexual intercourse (8%) and affectionate sexual expression had increased (12%). Similar to the present study, Minichiello, Plummer, and Seal (1996) found that 4% of men and 3% of women reported increases in sexual interest since the age of 40 years. The Duke University studies also reported that with increasing age, 15% of their sample had an increased interest in sexual intercourse. Increases in interest of sexual intercourse and sexual expression need to be investigated further to determine what characteristics those respondents have that ensure continued sexual interest and whether this relates to sexual health.

Given that the present studies sample were of relatively good health, future

research may wish to examine the effect that health has on interest in sexual intercourse and affectionate sexual expression. It is expected that poor health may have an impact on decreased interest of sexual intercourse, but not affectionate sexual expression. In fact the opposite may occur, where poor health predicts decreases in interest of sexual intercourse, but increases interest of affectionate sexual expression. This can be explained in terms of the ubiquitous nature of affectionate sexual expression, whereby a person will engage in those affectionate behaviours that are not restricted by their health to a high degree. As sexual intercourse is mediated by health variables to a large extent (e.g., Drench & Losee, 1996; Kaplan, 1990; Mooradian & Grief, 1990; Roughan et al., 1993; Zeiss, 1997), it is expected that as interest in sexual intercourse behaviour declines, increase in affectionate sexual expression increases as a compensatory mechanism. However, further research is need to support these contentions.

### Predictors of Changes and Frequency of Sexual Activity

Changes in the frequency of sexual intercourse since the age of 50 years was significantly predicted by the health of the respondent's spouse, indicating that sexual intercourse frequency was more likely if you had a spouse in good health. Surprisingly, other variables in this model (age, gender and self-reported health) were poor predictors of changes in sexual intercourse frequency in later life. However, that maybe because respondents reported that they were generally healthy, which could decrease the strength of the predictor variables. The regression analysis that examined frequency of sexual intercourse found that age, gender and health of spouse

significantly predicted frequency of sexual activity. Those results indicate that higher frequencies of sexual activity were significantly more likely if you were of younger age, male and had a partner who was of good health. The predictor variables will be discussed individually in relation to the results of the two regression analyses that investigated changes in sexual intercourse frequency since the age of 50 years and frequency of sexual intercourse.

### Age

Age has been implicated in many studies as being a predictor of sexual activity (e.g., Bergström-Walan & Nielsen, 1990; Masters & Johnson, 1966; Minichiello, Plummer & Seal, 1996; Mulligan & Moss, 1992; Verwoerd, Pfeiffer, & Wang, 1969a), even within married samples (Matthias et al., 1997). The present study supports those past studies and supplements the results of Minichiello, Plummer and Seal (1996). While Minichiello Plummer and Seal (1996) found that age significantly predicted sexual activity in an Australian married and unmarried sample, the present study demonstrated the same relationship in a sample of married older adults. In direct contrast, Marsiglio and Donnelly (1991) did not find any significant age differences for the occurrence of sexual intercourse in the past month, nor the frequency of sexual intercourse in the past month, in a national sample of married older persons. Further research needs to investigate the relationship between gender and sexual intercourse using an Australian national sample to enable comparison with Marsiglio and Donnelly's (1991) outcomes.

It is interesting to note that age was a significant predictor in the cross-sectional sexual activity frequency regression analysis, but not in the changes in sexual activity since the age of 50 years regression analysis. The current study asked the respondents to retrospectively judge if their level of sexual intercourse behaviour had changed since the age of 50 years, which reduced cohort effects, as respondents act as their own control. From those results it would appear that the significant result for currently engaging in sexual intercourse may be due to cohort differences. This is an extremely important result, as it brings forth some interesting implications regarding past studies that have not controlled for cohort effects or have found age related declines in the frequency of sexual intercourse in cross-sectional studies and attributed this as being part of the ageing process.

Studies that support the current authors assertion that the present study may be reflecting cohort effects, rather than age related changes can be found by examining studies that have not uncovered relationships between sexual activity and age. George and Weiler (1981) found no significant relationships between sexual activity, explaining that level of sexual activity remains stable. Starr and Weiner (1981) compared their samples mean frequency of sexual intercourse with those reported by Kinsey et al. (1948). The frequency level of Kinsey et al. (1948) 40 year old participants was comparable with Starr and Weiner's (1981) 70-79 years olds. These comparisons were made as the participants were of the same generation, so comparing the levels was justified. Although Verwoerd, Pfeiffer and Wang (1969a) found a significant effect of age on sexual activity, the significant results was only evident after

the third measurement of sexual activity. Those could reflect how age-related health variables influence sexual intercourse frequency of older-old respondents (ages ranged from 66 to 100 years) which then impacted on the overall estimate of sexual activity. Bretschneider and McCoy (1988) failed to find any significant effect for age on sexual activity, and a large percentage of respondents were no longer sexually active. The participants in the Bretschneider and McCoy study were aged between 80 - 102 years and did not compare them with younger age groups. It may be that health variables, in conjunction with measures of age could provide a better explanation of the age-related decline of sexual intercourse frequency evident in the Verwoerd et al (1969a) study.

The results of the present study and other longitudinal studies suggest that one needs to be extremely careful when using age as a predictor of sexual intercourse frequency, otherwise significant results could be better explained by cohort effects rather than age-related changes. Cross sectional studies that examine current and past levels of sexual intercourse (such as the present study), enable the researcher to evaluate cohort effects. Future research may wish to replicate this study to investigate whether the assertion of cohort effects is applicable, or could complete longitudinally designed studies. Furthermore, research using older samples need to include measures of health variables in order to thoroughly investigate and explain declines of sexual intercourse in later life.

### Gender

Being male significantly predicted sexual intercourse levels, but did not predict



self-reported changes in sexual intercourse behaviour. While the present study found that men were significantly more sexually active than women, gender was not a significant predictor for changes in sexual intercourse since the age of 50 years. That result suggests that men and women are as active now as they were when they were 50 years of age. While there are no studies that have examined self-reported changes in sexual intercourse levels, there are studies that have investigated sexual activity and gender differences.

The present study supports that of Marsiglio and Donnelly (1991), who found in their sample of married couples that male gender significantly predicted sexual activity in the past month. Other studies (Bergström-Walan & Nielsen, 1990; Minichiello, Plummer & Seal, 1996; Mulligan and Palguta, 1992, Mulligan & Moss, 1992) found that men were more sexually active than women, however those studies combined married and unmarried couples in their analyses. Those studies that combined married and unmarried respondents and found men were significantly more sexually active than women, may be reflecting the differential ratio between males and females in later life that provides men with more opportunities to find a sexual partner (Edleman, 1992, Rowland, 1991; Roughan et al., 1993). Therefore, studies that examine married and unmarried couples together generally have a large percentage of unmarried or widowed women that do not have a sexual partner that results in gender differences. When marital status is controlled for, the effect of gender is greatly reduced (Minichiello, Plummer & Seal, 1996).

Examining the occurrence of sexual relationships outside of marriage may be one avenue of exploring why men are more strongly related to sexual activity than women (Marsiglio & Donnelly, 1991). It may also be possible that there is a gender bias in reporting, where males over report and women underreport their sexual intercourse levels. Nevertheless, the present study of married older persons implicates that married men report that they engage in sexual intercourse significantly more often than married women.

### Self-Reported Health

Self-reported health was not a significant predictor of sexual intercourse frequency or changes in sexual intercourse frequency since the age of 50 years. This result could be explained by the fact that the majority of respondents reported that they were in good health. The lack of differentiation between respondents on the health variable may have made this predictor redundant. However, this result is consistent with Minichiello, Plummer and Seal (1996). In their sample of Australian older adults, the authors did not find a significant relationship between self-reported health and changes in sexual activity since the age of 40 years.

### Spouse's Health

Spouse's health was the only variable that was significant in both regression analyses, predicting changes in sexual intercourse levels since the age of 50 years, and current frequency of sexual intercourse. The health of one's spouse was the only variable that significantly contributed to the prediction of changes in sexual intercourse

level since mid-life. The degree to which one's spouse's health influences sexual intercourse frequency has not been fully examined in the literature. After extensive review of the literature, the present study is the first to report how spousal health impacts on frequency of sexual intercourse in an Australian sample of older adults. Future research needs to examine the influence of spousal health on sexual intercourse more closely.

A small number of studies have investigated the relationship between spousal health and current frequency of sexual intercourse. The present study supports Marsiglio and Donnelly (1991) who reported that spouse's health was significantly associated with sexual activity in the past month. Having a healthy partner appears to be an important factor in determining sexual intercourse levels and changes in frequency of sexual intercourse in later life. This proposition is supported by results of the present study that found spouse's health to be a significant predictor of changes in sexual intercourse levels since mid-life. Further research is needed to replicate this result and should try to include this variable.

Fookien (1994) did not directly assess the impact of spousal health, but the author noted that her sample of women commented that their husbands failing health negatively impacted on their level of sexual intercourse, more so than their own level of health. This is consistent with comments received from the respondents in the present study, although responses were from both males and females. In the free response section some respondents included comments that related to how decreases in

sexual intercourse were due to health issues. The majority of men made such comments in relation to their own health issues, whereas women reported that their husbands' health problems have led to declines in sexual intercourse. These comments suggest that women may be more restricted by their partner's health, which may be further influenced by gender roles implying that women do not initiate sexual behaviour. Furthermore, a lack of knowledge about ways in which a couple can adapt their sexual intercourse behaviour to overcome health problems could also explain restrictions to continued sexual activity.

The present study provides strong evidence for the relationship between spouse's health and its influence on sexual intercourse. This was demonstrated by spousal health being the only variable that was significant in both of the regression analyses that investigated changes in the level of sexual intercourse since the age of 50 years, and current frequency of sexual intercourse.

#### Changes and Frequency of Affectionate Sexual Expression

Changes in affectionate sexual expression since the age of 50 years and frequency of affectionate sexual expression was not significantly predicted by age, gender, health and health of spouse. Although more research is required using representative samples. An explanation for the lack of significant predictors could be that affectionate sexual expression is more varied and adaptable, allowing it to be more ubiquitous. Therefore, affectionate sexual expression may be less constrained by factors such as age, gender and health. The present study examined a broad range of

behaviours that compiled one's level of affectionate sexual expression. This may have enabled some people to have a higher level of affectionate sexual expression in some areas as opposed to others. For example, if one had arthritis which precluded them from hugging their partner, they may communicate in a loving way to compensate for their lack of physical affection. Alternatively, the motivational states of the sexual experience (desire, feeling good about oneself and one's partner) and cognitive aspects of affectionate sexual expression (trusting your partner, relationship satisfaction) may take on a different meaning or level of importance in later life, which may decrease the need for constant shows of affection. These explanations are consistent with the theory of sexual integrity that suggests that relationships marked by emotional caring and support can enhance sexual integrity (McFarlane & Rubenfeld, 1983).

It is important to look at affectionate sexual expression broadly, rather than at specific behaviours. Certain behaviours may decline, but may be substituted with other behaviours that fulfil a person's concept of sexuality. This may explain the discrepancy with previous studies that examined a narrow range of behaviours. In contrast to the present study, a cross-sectional study (Mulligan & Moss, 1992) found that frequency of touching or caressing significantly decreased as a respondent got older. Their results showed that younger age men (aged 30 - 59 years) engaged in touching or caressing behaviours weekly, whereas older men (aged 60 - 99 years) engaged in the same behaviours only monthly. The author attributed those results to age-related changes. The present study does not provide any evidence that age is associated with decreases in affectionate behaviours.

Mulligan and Moss (1992) only examined one form of affectionate sexual expression in isolation to many others that the present study investigated, which could account for their significant result. The present study enabled respondents to take into account many forms of affectionate sexual expression, which is consistent with the theory of sexual integrity. Mulligan and Moss focused on one facet of affectionate sexual expression, which restricts the respondents level of affectionate sexual expression to those two behaviours. Mulligan and Moss's study is further limited by its cross-sectional design, where the significant changes in the level of touching or caressing may be due to cohort effects rather than age-related changes.

Bretschneider and McCoy (1988) conducted another study that assessed changes in affectionate forms of sexual behaviour. The authors compared past and present self-reported levels of kissing and caressing behaviour without sexual intercourse in a sample aged 80 to 102 years. The data showed significant gender differences in frequency of touching and caressing, with women having a greater decline of those behaviours. Those results are in contrast with the present study, which did not find gender to significantly predict changes in the level of affectionate sexual expression since mid-life. Perhaps it was the combination of married and unmarried subjects that resulted in significant gender difference, where a majority of unmarried females may not have had access to a partner to caress or kiss. Examining kissing and caressing behaviours in isolation to other broader forms of affectionate sexual expression does not provide a clear representation of sexual expression in later life. Although

Bretschneider and McCoy (1988) and Mulligan and Moss (1992) have gone beyond sexual intercourse, further research really needs to explore affectionate sexual expression in its entirety in order to provide a clear understanding of what affectionate sexual expression is in later life.

The diffuse way in which older adults express their sexuality has been acknowledged by Starr and Weiner (1981) and Allen (1987). Those authors observed that older adults expressed their sexuality in more diffuse and varied ways compared with younger cohorts. It is important that future research of sexuality in later life moves beyond the traditional conceptualisation of sexual expression as being behaviours that have been related to younger adults. The various ways in which affectionate sexual expression is defined can be illustrated by the MASES. Because these affectionate behaviours are so pervasive, changes in the level of affectionate sexual expression may be minimal.

The lack of any significant changes in the level of affectionate sexual expression since mid-life may indicate that affectionate sexual expression is stable throughout the life span. Affectionate sexual expression is easily expressed and does not appear to be restricted by age, gender, and health of oneself or one's spouse. The lack of significant results suggests that affectionate sexual expression is a pervasive and normal behaviour, as opposed to sexual intercourse that is influenced by other factors. Affectionate sexual expression does not appear to be moderated by the same factors that affect changes in sexual intercourse. Affectionate sexual expression may be more

meaningful in later life than sexual intercourse, suggesting that sexuality in later life goes beyond the physical expressions of love (Robinson, 1983) and incorporates aspects of the whole person. Romance and intimacy may be more important aspects of sexual expression in later life, where those forms of sexual behaviours take precedence over sexual intercourse.

The results of the present study did not support previous studies that have examined changes in the level of affectionate behaviours. However, as the present study examined a wide range of behaviours and did not investigate isolated items on the MASES, comparison with past studies is problematic and may not be suitable. It is suggested that investigating a larger number of affectionate behaviours, such as the MASES does, provides more useful information regarding a person's sexuality as opposed to examining individual items. Previous researchers investigated relationships between age and affectionate behaviours, rather than examine predictors of affectionate sexual expression as the present study did. The present study found that variables of age, gender, health and health of spouse did not significantly predict changes in affectionate sexual expression.

Badeau (1995) reported that many of her female respondents aged over 80 years still needed affection. Alternatively, affectionate sexual expression may undergo changes with age in relation to what are the preferred ways of expression. Future research could compare younger and older adults' results on the MASES. A longitudinal study could provide information about how affectionate sexual expression



changes over time: Does preference of affectionate sexual expression behaviours change? This needs to be investigated further. Use of the MASES with adults and comparing them with older adults may provide some beneficial information however, ultimately a longitudinal study would be the preferred research design.

Given the exploratory nature of the present study, the lack of significant results provides some preliminary information in this area. Further research is needed before this area of investigation can be fully understood, and conclusions made. Whilst more research is needed on affectionate sexual expression, further research could also investigate the theory of sexual integrity. The present study examined one facet of sexual integrity. Further research needs to uncover variables that influence a person's success in fulfilling the need for sexual integrity, and to determine what variables predict a person's proximity to integrity at any time through the life span. Although the variables of age, gender, health and health of spouse were not significant predictors of affectionate sexual expression, further research is needed with a representative sample to confirm these results. This study however, provides evidence that disputes the assumption of asexuality in later life.

### Summary

The present study attempted to uncover what behaviours constitute affectionate sexual expression, and to compare affectionate sexual expression to sexual intercourse. The study resulted in the development of the MASES, which was found to be internally consistent. Items included in the MASES received a high level of agreement

from older men and women that they were forms of affectionate sexual expression relevant to later life, confirming that the scale reflects items that are relevant affectionate sexual expression in later life. The MASES was found to be a robust assessment, as it was not biased towards men or women, demonstrated by the lack of significant gender differences in their affectionate sexual expression total score. The lack of gender differences suggests that the MASES is not gender specific and that men and women engage in similar levels of affectionate behaviour.

The sample engaged in affectionate sexual expression significantly more often than sexual intercourse, suggesting that although they may not be currently sexually active, respondents were engaging in behaviours that were sexually expressive. This highlights that the definition of being currently sexually active needs to be redefined and expanded to encompass other forms of sexual expression. Interest in affectionate sexual expression was significantly less likely to have changed since the age of 50 years. This narrow view of investigating sexual intercourse behaviours may underestimate and not fully capture the importance of affectionate sexual expression in later life.

The results of the regression analyses showed that spouse's health significantly predicted changes in the level of sexual intercourse since the age of 50 years. Age, gender and spouse's health also significantly predicted frequency of sexual intercourse in the last year. As spouse's health was the only significant predictor in both of the regression analyses regarding sexual intercourse frequency, it was suggested that

health of one's spouse was a strong predictor of sexual activity. That variable needs to be investigated further in future studies. Younger age, male gender and health of spouse all significantly predicted higher levels of sexual intercourse. These results are consistent with previous studies. Self-reported health was not a significant predictor in both of the regression analyses. This could be due to the respondents reporting that they were all of generally good health.

The variables of age, gender, health and health of spouse did not significantly predict changes in the level of affectionate sexual expression since mid-life, or frequency of affectionate sexual expression. Those results suggest that affectionate sexual expression is not influenced by any of the predictor variables. These results are in contrast to previous results that investigated one or two affectionate behaviours. An explanation for the disparity between previous results and the present study was that the MASES provided a comprehensive measure of affectionate sexual expression. The MASES assessed a wide range of behaviours that allowed decreases in some forms of affectionate sexual expression to be compensated by increases in other alternative forms of affectionate sexual expression.

The overall results suggest that although interest in and frequency of sexual intercourse may decrease, these respondents continue to engage in affectionate forms of behaviour. These results provide support for the continuance of sexual expression in later life. These results challenge the theories of disengagement (Cumming & Henry, 1961) and the geriatric breakdown syndrome (Kaas, 1981) which suggest that

the older person withdraws from previous roles and perceives themselves as asexual. In contrast, the theory of sexual integrity rejects the perception of the asexual older person and highlights how integrity can be achieved in absence of sexual intercourse. Sexual integrity refers to the continued fulfilment of a person as a sexual being. This study demonstrated that affectionate sexual expression is not influenced by age, gender, and health variables, suggesting that it may be a more adaptive sexual behaviour than sexual intercourse, which was influenced, by the aforementioned variables. Items contained in the MASES reflect different facets of sexual integrity, rather than focus on the physiological aspects of a person's sexual functioning and capacity for sexual intercourse. Future research will need to examine the determinants of sexual integrity more closely, however the present study has demonstrated that older people are sexual beings, and affectionate behaviours occur well into old age.

### Limitations and Suggested Future Research

The following limitations of the present research and suggested areas for future research illustrate that sexuality research is a diffuse and broad area, and that no one study could adequately address all of these areas. The aim of the present research was to provide an insight into affectionate forms of behaviour and relate that to aspects of sexual functioning. The present research is not without its methodological flaws, and these will be discussed briefly.

Generalisations about older people in the community must be made with caution from this non-random unrepresentative sample. A limitation of the present study was

that the participants had high levels of income, education and health. The high level of self-reported health could explain why that variable was not a significant predictor in any of the regression analyses. Specific health problems such as impotence, erectile dysfunction, dyspareunia, chronic pain, mental health and level of fitness were not examined and could be incorporated into future research to further investigate the association between health and sexuality in later life. The effects of spousal health need to be investigated further. Examination of those factors may provide information that demonstrates how sexual intercourse behaviour is reduced as a result of any one or more of those issues.

Changes in relationship dynamics that occur with age and how they impact on sexual intercourse and affectionate sexual expression were not examined here and could provide important information. Factors that could be examined include length of relationship, changes in marital status (i.e., widowed and remarried persons, divorced and remarried persons, defacto couples). Different relationship dynamics could influence increases or decreases in different behaviours, as a new partner may behave differently from a respondent previous partner. Examining both partners reports of sexual activity may provide the means to verify reported behaviours and to investigate discrepancies in reported levels or frequencies.

Factors relating to sexual knowledge, attitudes and values, past sexual history, cultural and religious background, family origin attitudes to sexual activity, homosexual relationships and sexual relationships outside of marriage need to be

investigated further and were not examined in the present study. Inclusion of other sexual behaviours such as masturbation, oral sex, and mutual stimulation could provide a broader view of what constitutes sexual activity in later life.

A limitation of the present study's design is that some of the questions required participants to retrospectively judge whether their level of sexual intercourse, affectionate sexual expression and interest in those activities had changed since mid-life. However, for the purpose of this study, it was more important to know whether people perceived that their levels of activity or interest had changed. Secondly, the sample was composed of married 60 to 80 year olds, and comparisons with other studies may not be justified. For example, some studies examined 30 -99 year olds male veterans (Mulligan & Moss, 1991) while another examined 80 to 102 year olds (Bretschneider & McCoy, 1988). Future research designs could use a cross-sectional analysis examining measures of sexual intercourse, affectionate sexual expression and other sexual behaviours between young adults, middle-aged adults and older adults to enable valid assumptions to be drawn.

### Implications

One implication of the present study is that caregivers and health practitioners should be willing to acknowledge that sexual intercourse and affectionate sexual expression are important parts of social functioning. The present study explained how sexual integrity (McFarlane & Rubenfeld, 1983) is an important component of sexual expression and the information from this study can be used to attempt to disrupt the

cycle of the geriatric breakdown syndrome. By emphasising and promoting positive aspects of sexuality in later life, and the ongoing drive towards sexual integrity, social attitudes and stereotypes regarding the asexual older person may slowly change. The shift in social attitudes would also question the usefulness of the theory of disengagement (Cumming & Henry, 1961) and the geriatric breakdown syndrome (Kaas, 1981). Sexuality in later life needs to be redefined, going beyond the physical expressions of sexual intercourse, and focusing on the broader aspects of sexual integrity and affectionate sexual expression that are more meaningful in later life.

On another level, researchers of sexuality in later life should also acknowledge the importance of affectionate sexual expression, until now a neglected area of gerontological investigation. The newly developed MASES can be used as an investigative tool for future research, but may also be useful for counsellors and therapists of persons with sexual problems to help identify areas of affectionate behaviour that a person or couple may be lacking in. The MASES could be used as an education tool, where this new information can be integrated into education programs for health care providers or older adults, to advise them of alternative forms of sexuality in later life. The information regarding the ongoing nature of affectionate sexual expression throughout the life span could be incorporated into high school education programs that teach youth about the changing nature of sexuality in later life, and the importance of intimacy issues. This study answers some important questions but raises many more. For example, are older adults satisfied with their level of affectionate sexual expression? Would these findings be consistent if the study

were replicated in different social strata or in a different geographical area? The main purpose of this research was to demonstrate that sexual activity does not necessarily decline in later life. This study promotes the enduring nature of sexuality in later life. This information needs to be utilised by health professionals providing information that describes a more accurate and balanced view of sexuality in later life. This study challenges traditional sexual research that has tended to reinforce generalisations about older person's asexuality. Numerous questions are raised within the present research and suggestions for future research describe ways in which these questions may begin to be answered. The present research provides information that details how affectionate sexual expression is an aspect of sexuality in later life, and opens many avenues for future research.



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Appendices

### Appendix A: List of Behaviours Described as Being Forms of Affectionate Sexual Expression.

The following behaviours were identified in the literature as being forms of sexually expressive behaviours relevant to older adults:

Love	Touching	Physical contact	Relationship commitment
Caring	Caressing	Affection	Relationship satisfaction
Kissing	Petting	Company	Positive self image
Intimacy	Erotica	Day dreaming	Sense of self worth
Sharing	Fantasies	Warmth	Communication
Romanticism	Hugging	Sexual interest	Attraction
Desire	Self esteem	Nudity	Friendship
Attraction	Body image	Feeling sexy	Sensual activities
Companionship	Sex talk	Feeling beautiful	Wearing lingerie
Emotional intimacy	Being admired	Faith	Going to the hairdresser
Social intimacy	Tenderness	Trust	Contact with pets
Intellectual	Oneness	Being close	Contact with family
intimacy	Sense of self	Holding	Verbal expressions
Bathing together	Fondling	Touching	Interpersonal intimacy
Dressing up	Sharing a bed	Physical contact	Belonging
Going out	Suggestiveness	Grooming	Attractiveness
Erotic pictures	Dating rituals	Bonding	Feeling desirable
Friendship	Cuddling	Being held	Undressing partner

## Appendix B: Items on the Affectionate Sexual Expression Scale.

Item Number	Description
1.	Communicating and acting in a loving way.
2.	Physical contact, touching, caressing, cuddling.
3.	Emotional Intimacy: affection, enjoying being with someone else
4.	Kissing, petting
5.	Reading erotic books, magazines, or watching erotic videos.
6.	Fantasising about your partner or other person.
7.	Sensual activities: wearing lingerie, grooming.
8.	Feeling attractive and desired
9.	Being nude or bathing with your partner.
10.	Feeling sexy or beautiful.
11.	Being massaged or massaging your partner.
12.	Sharing and caring for your partner.
13.	Holding hands with your partner.
14.	Trusting your partner.
15.	Going out with your partner, eating, dancing, going to the movies.
16.	Physical contact with your family, friends and/or pets.
17.	Relationship satisfaction: friendship and companionship.
18.	Positive self image, self esteem: feeling good about yourself.
19.	A feeling of comfort, warmth, tenderness, being emotionally close.
20.	Romance, courtship, preparing for a special evening.

## Appendix C: Relationships in Later Life Questionnaire

**Relationships and Intimacy in Later Life Questionnaire****SECTION ONE:**

**Please tick or circle the response which is correct for you.**

1. Sex:        Male \_\_\_\_\_ Female \_\_\_\_\_

2. Age (please write how many years):        \_\_\_\_\_ Years

3. Marital Status (Tick as many as apply):

Married \_\_\_\_\_ Divorced \_\_\_\_\_ Widowed \_\_\_\_\_ Defacto \_\_\_\_\_

Living with someone \_\_\_\_\_ \*Living alone \_\_\_\_\_

**\* If you are living alone you are not required to complete this questionnaire.**

4. Education (circle one):

Primary School        Some high school        High school graduate

Some University        University graduate        Advanced degree

5. Is your main income the pension? (Tick one)

Yes \_\_\_\_\_ No \_\_\_\_\_

6. How comfortable are you with your level of income?

Comfortable with my level of income \_\_\_\_\_

I worry about money a little \_\_\_\_\_ I worry about money a lot \_\_\_\_\_

7. How would you rate your current level of health?

Excellent      Very Good      Good      Fair      Poor

8. How would you rate your partner/spouse’s current level of health?

Excellent      Very Good      Good      Fair      Poor

**SECTION TWO**

**The following questions look at how often you engage in different behaviours. These behaviours are believed to be ways in which people express their sexuality, although they are not actual sexual acts. They include things such as kissing, feeling attractive and trusting your partner.**

**Using the scales below, circle a number between 0 and 5 which best describes how often you do ANY of the behaviours listed for each question. Use the descriptions below to choose your response.**

<b>Never or Less than once a year</b>	<b>Seldom or Once a Year</b>	<b>Sometimes or Several times a Year</b>	<b>Regularly or Several times a Month</b>	<b>Often or Several times a Week</b>	<b>Very Often or Daily</b>
<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

1. Communicating and acting in a loving way

0	1	2	3	4	5
---	---	---	---	---	---

2. Physical contact, touching, caressing, cuddling.

0	1	2	3	4	5
---	---	---	---	---	---

3. Emotional Intimacy: affection, enjoying being with someone else

0	1	2	3	4	5
---	---	---	---	---	---

4. Kissing, petting.

0	1	2	3	4	5
---	---	---	---	---	---

5. Reading erotic books, magazines, or watching erotic videos.

0	1	2	3	4	5
---	---	---	---	---	---

6. Fantasising about your partner or other person.

0	1	2	3	4	5
---	---	---	---	---	---

7. Sensual activities, wearing lingerie, grooming.

0	1	2	3	4	5
---	---	---	---	---	---

8. Feeling attractive and desired.

0	1	2	3	4	5
---	---	---	---	---	---

9. Being nude or bathing with your partner.

0	1	2	3	4	5
---	---	---	---	---	---

10. Feeling sexy or beautiful.

0	1	2	3	4	5
---	---	---	---	---	---

11. Being massaged or massaging your partner.

0	1	2	3	4	5
---	---	---	---	---	---

12. Sharing and caring for your partner.

0	1	2	3	4	5
---	---	---	---	---	---

13. Holding hands with your partner.

0	1	2	3	4	5
---	---	---	---	---	---

<b>Never or Less than once a year</b>	<b>Seldom or Once a Year</b>	<b>Sometimes or Several times a Year</b>	<b>Regularly or Several times a Month</b>	<b>Often or Several times a Week</b>	<b>Very Often or Daily</b>
<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

14. Trusting your partner.

0	1	2	3	4	5
---	---	---	---	---	---

15. Going out with your partner, eating out, dancing, going to the movies.

0	1	2	3	4	5
---	---	---	---	---	---

16. Physical contact with your family, friends and/or pets.

0	1	2	3	4	5
---	---	---	---	---	---

17. Relationship satisfaction: friendship and companionship.

0	1	2	3	4	5
---	---	---	---	---	---

18. Sense of self worth: positive self image and good self esteem.

0	1	2	3	4	5
---	---	---	---	---	---

19. Comfort, warmth, tenderness, being close, oneness.

0	1	2	3	4	5
---	---	---	---	---	---

20. Romance, courtship, preparing for a special evening.

0	1	2	3	4	5
---	---	---	---	---	---



### SECTION THREE

**Sexual expression includes a range of affectionate behaviours, desires and feelings such as those, which you have just read.**

**For each of the statements below, please place a tick on the left if you AGREE that this is a form of sexual expression.**

- \_\_\_ 1. Communicating and acting in a loving way.
- \_\_\_ 2. Physical contact, touching, caressing, cuddling.
- \_\_\_ 3. Emotional Intimacy: affection, enjoying being with someone else.
- \_\_\_ 4. Kissing, petting.
- \_\_\_ 5. Reading erotic books, magazines, or watching erotic videos.
- \_\_\_ 6. Fantasising about your partner or other person.
- \_\_\_ 7. Sensual activities, such as wearing lingerie, grooming.
- \_\_\_ 8. Feeling attractive and desired.
- \_\_\_ 9. Being nude or bathing with your partner.
- \_\_\_ 10. Feeling sexy or beautiful.
- \_\_\_ 11. Being massaged or massaging your partner.
- \_\_\_ 12. Sharing and caring for your partner.
- \_\_\_ 13. Holding hands with your partner.
- \_\_\_ 14. Trusting your partner.
- \_\_\_ 15. Going out with your partner, eating, dancing, going to the movies.
- \_\_\_ 16. Physical contact with your family, friends and/or pets.
- \_\_\_ 17. Relationship satisfaction: friendship and companionship.
- \_\_\_ 18. Sense of self worth: positive self image, self esteem.
- \_\_\_ 19. Comfort, warmth, tenderness, being close, oneness, kindness.
- \_\_\_ 20. Romance, courtship, preparing for a special evening.

**Can you think of any other forms of sexual expression which have not been mentioned here? Please list them.**

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**SECTION FOUR**

**The next section will ask about sexual expression, sexual interest and sexual intercourse. Sexual expression includes a large amount of intimate behaviours, desires, emotions and feelings like the questions you have seen earlier.**

**For the following questions, sexual expression does not refer to sexual intercourse, but to the behaviours and feelings which were mentioned previously.**

**Please circle one response for each question.**

1. Think about all behaviours which make up sexual expression such as those already discussed. As an overall rating, how often would you engage in those behaviours? (Please circle one category).

Less than once a year	Once a Year	Several times a Year	Several times a Month	Several times a Week	Daily or more
--------------------------	----------------	----------------------------	-----------------------------	----------------------------	------------------

2. Has your level of sexual expression since changed since you were 50 years old?

Increased                      Decreased                      Same

3. Has your interest in sexual expression changed since you were 50 years old?

Increased                      Decreased                      Same

4. How important do you think that sexual expression is for your well-being?

Very                      Moderately                      Somewhat                      Not at all  
Important                      Important                      Important                      Important

5. Has your interest in having sexual intercourse changed since you were 50 years old?

Increased                      Decreased                      Same

6. Has your frequency of sexual intercourse changed since you were 50 years old?

Increased                      Decreased                      Same

7. How important do you rate sexual interest to your well-being?

Very                      Moderately                      Somewhat                      Not at all  
Important                      Important                      Important                      Important

8. How important do you rate sexual intercourse to your well-being?

Very                      Moderately                      Somewhat                      Not at all  
Important                      Important                      Important                      Important

9. Some people in their later years remain sexually active while others do not. Are you currently in a relationship where you have sexual intercourse?

Yes                      No

10. During the past 12 months how often have you had sexual intercourse? (Circle one category)

Less than once a year	Once a Year	Several times a Year	Several times a Month	Several times a Week	Daily or more
--------------------------	----------------	----------------------------	-----------------------------	----------------------------	------------------

Are there any comments you would like to make?

## Appendix D: Information Sheet Provided to Respondents

Dear Potential Participant,

The aim of the following questionnaire is to increase the knowledge about sexual intimacy in later life. If you are over 60 years of age, and are in a relationship where you are living with a partner, it would be greatly appreciated if you would complete this anonymous questionnaire.

I am a Master of Psychology student of Edith Cowan University, who is doing a study to find out more about the desires and needs of older people. The results of this questionnaire will be used when I write my thesis. The information may also be published in a scientific journal in an endeavour to help other health professionals to understand more about intimacy in later life. I will also give feedback to interested participants about the results of my study.

The questionnaire takes approximately 20 minutes to complete and is basically made up of four sections. The first part deals with your background to reveal any common characteristics with other respondents. The second section is a checklist of different behaviours (such as feeling sexy or going out with your partner), and you are to tick if you agree that those behaviours are forms of sexual expression. The third section asks how often you engage in the different behaviours from the checklist, such as holding hands, and communicating in a loving way. The last section asks brief and general questions about how your level of sexual interest, sexual expression and sexual intercourse has changed since you were 50 years old.

The questions are brief, easy to answer and do not ask specific intimate information. You do not need to answer any questions that you may feel uncomfortable answering. You may decide to stop answering the questionnaire at any time. Should you wish to obtain more information about the questionnaire you can phone me, or my supervisor, at the numbers provided below.

Only **one person** from a **couple** is required to complete the questionnaire. Choose the answer that best reflects the way **you personally** feel. The information you give will be kept strictly confidential. No one except the researchers will read the questionnaires.

Please do not put your name on the questionnaire. There are no identifying marks on the questionnaire so it is impossible to know who has completed it. Whilst the results may be published, there is no way of identifying individual participants.

Any questions regarding the project “Relationships and Intimacy in Later Life” can be directed to the researcher

**Christina Petz** on [REDACTED] or my Supervisor, **Dr Susan Gee** on [REDACTED]

If there are any relationship issues raised by completing this questionnaire that you would like to discuss further, you may also wish to contact an appropriate person or organisation such as **Relationships Australia** on [REDACTED]

If you are prepared to help it would be most appreciated. Please complete the questions on the front of the questionnaire and fill out the questionnaire.

Please return the questionnaire in the pre-paid envelope provided. Thank you very much for your time.

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Christina Petz

Appendix E: Consent Form Given to Respondents to Acknowledge their Participation.

This is an anonymous questionnaire. You do not need to write your name, or any other information that will make you identifiable on it.

If you have any questions please ask me to answer them. If you prefer to remain anonymous you can phone me at the following number: [REDACTED] Please read the following questions before you complete the questionnaire.

	YES	NO
Did you read the information sheet?		
Were you given adequate opportunity to ask questions?		
If you asked questions, were they answered to your satisfaction?		
Are you satisfied that you understand the study?		
Do you voluntarily agree to participate in this study?		

Once you have completed this questionnaire please use the addressed prepaid envelope to post it to me.

## Appendix F: Output Data For the 20 Item Affectionate Sexual Expression Scale

ASE Item	Corrected Item-Total Correlation	Alpha if Item Deleted
Communicating and acting lovingly	.7290	.9097
Physical contact, touching, cuddling	.7295	.9094
Emotional Intimacy: affection	.7797	.9079
Kissing, petting	.7094	.9098
<b>Reading/viewing erotic material</b>	<b>.3049</b>	<b>.9186</b>
<b>Fantasising about your partner</b>	<b>.1151</b>	<b>.9232</b>
<b>Sensual activities</b>	<b>.2106</b>	<b>.9220</b>
Feeling attractive and desired	.5800	.9131
Being nude or bathing	.5224	.9147
Feeling sexy or beautiful	.5816	.9132
Being massaged or massaging other	.4990	.9149
Sharing and caring for your partner	.7635	.9094
Holding hands with your partner	.7002	.9100
Trusting your partner	.5529	.9137
Going out with your partner	.4975	.9149
Physical contact: family, friends, pets	.6858	.9108
Relationship satisfaction: friendship	.6773	.9111
Positive self image, self esteem	.4559	.9156
A feeling of comfort, warmth	.8001	.9090
Romance, courtship	.6609	.9119

Note. ASE = Affectionate Sexual Expression. For complete wording of ASE items see Appendix B. Items in bold were those omitted from further analyses. N = 42  
Cronbach's alpha = .9172.



Appendix G: Output Data for the 17 Item Modified Affectionate Sexual Expression Scale

ASE Item	Corrected Item-Total Correlation	Alpha if Item Deleted
Communicating and acting lovingly	.7343	.9222
Physical contact, touching, cuddling	.7262	.9222
Emotional Intimacy: affection	.7565	.9213
Kissing, petting	.6934	.9230
Feeling attractive and desired	.5662	.9265
Being nude or bathing	.5186	.9280
Feeling sexy or beautiful	.5454	.9272
Being massaged or massaging other	.4812	.9284
Sharing and caring for your partner	.7833	.9214
Holding hands with your partner	.6915	.9232
Trusting your partner	.6100	.9252
Going out with your partner	.4885	.9277
Physical contact: family, friends, pets	.6690	.9238
Relationship satisfaction: friendship	.7114	.9230
Positive self image, self esteem	.4528	.9285
A feeling of comfort, warmth	.8217	.9209
Romance, courtship	.6488	.9247

Note. ASE = Affectionate Sexual Expression. For complete wording of ASE items see Appendix B. N = 45. Cronbach's alpha = .9287.

# Appendix H

## Frequency of Affectionate Sexual Expression Behaviours by Gender.

ASE Item	Response Categories																		n <sup>1</sup>	n <sup>2</sup>
	Never / Less Than Once a Year			Seldom / Once a Year			Sometimes / Several Times a Year			Regularly / Several Times a Month			Often / Several Times a Week			Very Often / Daily				
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total		
1.	2.9	2.4	2.6	0.0	4.8	2.6	5.7	2.4	3.9	11.8	16.7	14.5	20.6	28.6	25.0	58.8	45.2	51.3	34	42
2.	2.9	5.0	4.1	0.0	0.0	1.4	8.8	7.5	8.1	11.8	7.5	9.5	2.4	32.5	32.4	44.1	45.0	44.6	34	40
3.	17.2	5.4	10.6	3.4	0.0	1.5	6.9	2.7	4.5	24.1	18.9	21.2	10.3	35.1	24.2	37.9	37.8	37.9	29	37
4.	9.1	12.2	10.8	0.0	0.0	0.0	9.1	12.2	16.8	12.1	12.2	12.2	33.3	24.4	28.4	36.4	39.0	37.8	33	41
5.	62.5	77.1	70.1	9.4	14.3	11.9	12.5	5.7	9.0	12.5	2.9	7.5	0.0	0.0	0.0	3.1	0.0	1.5	32	35
6.	31.3	57.1	44.8	15.6	14.3	14.9	18.8	14.3	16.4	18.8	11.4	14.9	12.5	2.9	7.5	3.1	0.0	1.5	32	35
7.	82.8	35.3	57.1	0.0	8.8	4.8	10.3	17.6	14.3	3.4	11.8	7.9	3.4	23.5	14.3	0.0	2.9	1.6	29	34
8.	28.6	8.1	16.9	3.6	0.0	1.5	21.4	29.7	26.2	32.1	27.0	29.2	7.1	24.3	16.9	7.1	10.8	9.2	28	37
9.	40.6	48.6	44.9	0.0	8.1	4.3	12.5	16.2	14.5	21.9	16.2	18.8	0.0	5.4	2.9	25.0	5.4	14.5	32	37
10.	32.0	17.6	23.7	8.0	11.8	10.2	28.0	23.5	25.4	12.0	26.5	20.3	16.0	8.8	11.9	16.0	11.8	8.5	25	34
11.	38.7	51.4	45.6	12.9	10.8	11.8	19.4	18.9	19.1	22.6	10.8	16.2	3.2	0.0	1.5	3.2	8.1	5.9	31	37
12.	2.9	2.4	2.7	0.0	0.0	0.0	14.7	4.9	2.7	32.4	12.2	13.3	0.0	19.5	25.3	50.0	61.0	56.0	34	42
13.	6.1	10.0	8.2	6.1	2.5	4.1	12.1	7.5	9.6	15.2	22.5	19.2	24.2	25.0	24.7	36.4	32.5	34.2	33	40
14.	5.9	2.5	4.1	0.0	0.0	0.0	0.0	2.4	1.4	0.0	7.5	4.1	11.8	5.0	8.1	82.4	82.5	82.4	34	40
15.	2.9	2.4	2.6	2.9	0.0	1.3	20.6	28.6	25.0	47.1	35.7	40.8	17.6	16.7	17.1	8.8	16.7	13.2	34	42
16.	2.9	2.7	2.9	2.9	0.0	1.5	25.8	16.2	20.6	38.7	35.1	36.8	12.9	18.9	16.2	16.1	27.0	22.1	31	37
17.	3.1	0.0	1.4	0.0	2.4	1.4	9.4	2.4	5.5	9.4	17.1	13.7	18.8	19.5	19.2	59.4	58.5	58.9	32	41
18.	2.9	0.0	1.5	0.0	0.0	0.0	13.3	21.1	17.6	33.3	13.2	22.1	30.0	31.6	30.9	20.0	34.2	27.9	30	38
19.	3.2	0.0	1.4	0.0	2.4	1.4	0.0	9.8	5.6	19.4	7.3	12.5	22.6	36.6	30.6	54.8	43.9	48.6	31	41
20.	6.9	8.3	7.7	0.0	9.5	6.2	37.9	30.6	33.8	41.4	38.9	40.0	6.9	8.3	7.7	6.9	2.8	4.6	29	36

**Note:** The values represent percentage values. For the corresponding item description, see Table 1 or Appendix B.

n<sup>1</sup> = number of males out of 35 who responded to the item. n<sup>2</sup> = number of females out of 42 who responded to that item.

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